

The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

[The MINING JOURNAL is Registered at the General Post Office as a Newspaper, and for Transmission Abroad.]

No. 2302.—VOL. XLIX.

LONDON, SATURDAY, OCTOBER 4, 1879.

[WITH SUPPLEMENT.] PRICE SIXPENCE.
PER ANNUM, BY POST, £1 4s.

**MR JAMES H. CROFTS, STOCK AND SHARE BROKER,
AND MINING SHARE DEALER,
No. 1, FINCH LANE, CORNHILL, LONDON, E.C.
ESTABLISHED 1842.**

BUSINESS transacted in all descriptions of MINING Stocks and Shares (British and Foreign), Consols, Bonds (Foreign and Colonial), Railways, Insurance, Assurance, Telegraph, Tramway, Shipping, Canal, Gas, Water, and Dock Shares, and all Miscellaneous Shares.

BUSINESS negotiated in Stocks and Shares not having a general market value.

Every Friday a general and reliable List issued (a copy of which will be forwarded regularly on application), containing closing prices of the week.

MINE INSPECTED.

BANKERS: CITY BANK, LONDON—SOUTH CORNWALL BANK, ST. AUSTELL.

SPECIAL DEALINGS in the following, or part:—
100 Cambrian, offer wtd. 20 Herodfoot, £2½. 100 Penstruthal, 6d.
25 Colorado, £1¼. 150 Javali, 7s. 3d. 10 Richmond, £2½.
20 Devonport & Tiverton 20 Leadhills, £2¼. 20 Tankerville, £3¼.
Brewery. 50 Llanidloes, 10s. 25 West Asheton, 16s 3d.
20 East Van, £2 8s. 9d. 50 Morfa Du, 16s. 25 Wye Valley, 20s.
20 Eberhardt, £2. 150 Pestarene, 4s. 3d. 20 West Chiverton, £2¼.
50 Frontino, £2 3s. 9d. 100 Parys Corporat., 16s 6. 20 Wheal Crebor, £6¼.

BUSINESS in OREBOR and PARYS CORPORATION at CLOSE PRICES.

** SHARES SOLD FOR FORWARD DELIVERY (ONE, TWO, OR THREE MONTHS) ON DEPOSIT OF TWENTY PER CENT.

RAILWAYS—SPECIAL BUSINESS.

FOREIGN BONDS—SPECIAL BUSINESS.

Fortnightly accounts opened on receipt of the usual cover.

JAMES H. CROFTS, 1, FINCH LANE, LONDON.

ESTABLISHED 1842.

**MR. W. H. BUMPUS, STOCK AND SHARE BROKER,
AND MINING SHARE DEALER,
44, THREADNEEDLE STREET, LONDON, E.C.
ESTABLISHED 1867.**

BUSINESS transacted in STOCK EXCHANGE SECURITIES

and MISCELLANEOUS SHARES of every description.

RAILWAYS, BANKS, FOREIGN and COLONIAL BONDS.

TRAMWAYS, TELEGRAPHS, and all the LEADING INVESTMENTS.

Accounts opened for the Fortnightly Settlement

A Stock and Share List free on application.

MR. BUMPUS has SPECIAL BUSINESS in the undermentioned:—

100 Almada, 6s. 6d. 35 Frontino, 46s. 6d. 40 Pandora, 12s. 6d.
100 Bedford United, 9s 4d. 20 Great Holway. 20 Penhalls.
50 Blue Tent, 36s. 150 Gold Run, 3s. 6d. 200 Pestarene, 4s. 3d.
75 Bodidris. 100 Glenroy. 50 Parys Copper, 17s.
2 Carn Brea, £44. 20 Gawn, 14s. 100 Port Phillip, 10s.
50 Colorado, 29s. 20 Hultafall, £2¼. 10 Roman Grav., £8 11 3.
5 Cape Copper, £28½. 20 Hultafall, £2¼. 20 Richmond, £8 11s. 3d.
100 Chontales, 5s. 150 Herodfoot, £2½. 25 Ruby, £2 13s. 9d.
50 Canada Gold. 100 Javali, 7s. 6d. 15 South Frances, £9.
20 Cook's Kitchen. 50 Kapanga, 5s. 10 South Condurrow,
25 Chapel House. 40 Lead Era. £12 18s. 9d.
120 Don Pedro, 13s. 6d. 50 Leadhills, £2¼. 150 Tamar Silver-Lead.
15 Devon Consols, £3¼. 30 Killbreth. 15 Tankerville, £4¼.
3 Dolcoath, £37. 5 Minera, £9½. 5 Van, £17.
20 East Lovell, £3¼. 50 Marke Valley, 18s. 20 Wheal Peavor, £13½.
5 East Pool, £16. 100 Morfa Du. 25 Wheal Grenville, £5½.
30 East Van, £2¼. 50 North D'eresby. 30 West Peavor, £4¼.
50 East Caradon, 22s. 150 Nouveau Monde, 14s. 50 West Holway.
25 New Quebrada, £2 13 9

IMPORTANT TO INVESTORS.

Shares in SOUND Tin Mines may now be bought with advantage, and an investment at present prices will, in all probability, show very profitable results before the end of the year. The following are particularly recommended:—Wheal Peavor, South Wheal Frances, South Condurrow, East Pool, Wheal Grenville, Wheal Jane, and West Peavor.

SPECIAL BUSINESS, at close prices, in the SHARES of all the principal HOME and FOREIGN MINES.

A complete and reliable List of all the Leading Investments (published on the first of each month) may be obtained free on application to—

WILLIAM HENRY BUMPUS, SWORN BROKER.

OFFICES: 44, THREADNEEDLE STREET, LONDON, E.C.

BANKERS: THE NATIONAL PROVINCIAL BANK OF ENGLAND, E.C.

MESSRS. JONES AND HOUSTON, 25, CROSBY HALL

CHAMBERS, LONDON, E.C.,

STOCK AND SHARE DEALERS, and GENERAL MINING AGENTS.

SPECIAL BUSINESS in the following Shares, which we can honestly and boldly recommend either to hold for dividends or a great rise in market value:—

BRYN GLAS, DON PEDRO, RHYDALUN, SENTEIN, WHEAL OREBOR.

BRYN GLAS SILVER-LEAD MINE.—This mine, possessing all the indications of a really valuable property, as demonstrated by practical results, considering the enormous production of lead, with a fair proportion of silver already yielded from comparative scratchings, amounting, in fact, to nearly £60,000, may be regarded as a certainty. The further development, contingent upon the sinking of the shaft and the extension of the levels upon the course of the lodes, will unquestionably open out a mine equal to, if not surpassing, the East Darren or the Lisburne, which have yielded such fabulous profits to the adventurers. I have made assays of the ore hitherto raised, and have every reason to be satisfied with the result.

BRYN GLAS.—An interest in this proved valuable mine should be secured without delay, as the shares must shortly command a high premium. The company has been duly registered, and it is more than probable that the application for shares will exceed the number to be allotted.

BANKERS: LONDON AND PROVINCIAL.

MR. E. J. BARTLETT, BRITISH AND FOREIGN STOCK

AND SHARE DEALER,

No. 30, GREAT ST. HELEN'S, LONDON, E.C.

JUST OUT.

"HOW TO INVEST," post free, One Shilling, Twelfth Edition, enlarged.

MR. JOHN BATTERS, STOCK AND SHARE DEALER,

transacts Business in Stock Exchange and Mining Securities.

Special information to Investors in Lead Mines, also in Swedish, Canadian, and other securities.

4, AUSTINFRIARS, LONDON, E.C.

MR. GEORGE BUDGE, STOCK AND SHARE DEALER,

9, GRACECHURCH STREET, LONDON, E.C. (Established 26 years).

ALL BUSINESS TRANSACTED FREE OF ANY CHARGE FOR

COMMISSION.

Notice to Investors and Speculators.

Mr. BUDGE has SPECIAL DEALINGS in—

100 Bedford United, 9s 4d. 35 East Lovell. 40 Penhalls, 20s.
75 Blaen Caelan. 100 Frontenac. 150 Parys Corporation, 17s.
100 Bodidris. 50 Gawn. 100 Richmond, £2½.
4 Carn Brea, £42. 50 Greys Brewery. 10 South Frances, £9½.
80 Comb Martin. 30 Grogwinlon. 125 Tamar Silver-Lead.
50 Devon Consols, £3¼. 200 Gold Run, 2s. 9d. 50 Wheal Oreb. 10s.
3 Dolcoath. 50 Glenroy, 10s. 3d. 80 Wheal Kitty, 16s. 9d.
45 Herodfoot. 30 Wheal Uny. 50 Wheal Jane. 10s.
20 Devonport & Tiverton. 70 Marke Valley, 16s. 6d. 50 West Frances. 10s.
75 East Caradon. 10 Minera, £9.

BUYERS or SELLERS of any of the above, or holders of any Stocks or Shares not readily marketable, will do well to apply to Mr. BUDGE.

HOME MINES—LEAD, TIN, AND COPPER.

BRITISH LEAD, TIN, and COPPER having been lower in price than ever known, it is at last satisfactory to observe an upward tendency. The general feeling is that these METALS will now continue to rise in price.

Most of our HOME LEADING DIVIDEND and PROGRESSIVE LEAD, COPPER, and TIN MINE SHARES are now at a mere NOMINAL figure, and we strongly recommend immediate purchase in many of them, a List of which can be had on application.

Messrs. PETER WATSON AND CO.,

54, OLD BROAD STREET, LONDON, E.C.

UNITED STATES AND COLONIAL MINES.

IMPORTANT INFORMATION REGARDING THE ABOVE.

BUYER and SELLER of SHARES at the close Market Price of the day.

SHAREHOLDERS and INVESTORS may rely on all business being punctually and faithfully carried out.

A DAILY LIST OF PRICES sent (free) on application, either personally or by post.

BANKERS: THE ALLIANCE BANK (Limited).

Messrs. PETER WATSON AND CO.,

54, OLD BROAD STREET, LONDON, E.C.

BRITISH AND FOREIGN MINES

SHAREHOLDERS and INVESTORS desirous of PURCHASING or SELLING SHARES in COPPER, TIN, LEAD, GOLD, or SILVER

MINES can do so at market prices, and obtain information regarding the same on personal application, or by letter, of—

Messrs. PETER WATSON AND CO.,

54, OLD BROAD STREET, LONDON, E.C.

Telegraphic Messages punctually attended to.

STOCK AND SHARE MARKETS.

Prices of STOCKS and SHARES in RAILWAYS, BANKS, ENGLISH

and FOREIGN GOVERNMENT SECURITIES, GAS, MINES, INSURANCE,

and other Stock Exchange Securities, and various important information telegraphed instantaneously from the STOCK AND SHARE MARKETS direct into the offices of—

Messrs. PETER WATSON AND CO.,

54, OLD BROAD STREET, LONDON, E.C.

From 11 A.M. to 4 P.M. (Saturdays 11 A.M. to 2 P.M.) for the information of customers.

MR. ALFRED E. COOKE, STOCK AND SHARE DEALER,

76, OLD BROAD STREET, LONDON.

ESTABLISHED 1853.

NORTH D'ERESBY MOUNTAIN (LEAD).

These shares should be bought AT ONCE at 20s. No further liability. The cheapest and one of the most promising Mines in Wales. Vide reports, to be obtained on application.

MR. COOKE is a BUYER of the following shares:—

200 Pandora. 70 East Caradon. 140 Wheal Oreb. 10 Van.

150 Parys Corporation. 100 Wheal Bassett. 25 East Lovell.

SELLERS please state lowest price by wire or letter. Settlement on Oct. 15th.

MR. COOKE is a SELLER of the following shares:—

25 Leadhills, £2½. 100 North D'eresby. 50 East Caradon.

35 Bedford United. 15 Bodidris. 65 Parys Corporation.

50 Gawn. 25 Wheal Oreb. 10 East Lovell.

10 Herodfoot.

BUYERS please make best offer by wire or letter. Settlement on Oct. 15.

STOCKS AND SHARES,

FOREIGN BONDS, TELEGRAPHS, TRAMWAYS, RAILWAYS, and

OTHER LEADING SECURITIES.

MR. JAMES STOKER, STOCK BROKER,

2, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.

ESTABLISHED 1848.

SPECIAL BUSINESS in BRITISH and FOREIGN MINES.

BANKERS: LONDON AND WESTMINSTER.

FERDINAND R. KIRK, 5, BIRCHIN LANE,

LONDON, E.C.

FORTNIGHTLY ACCOUNTS opened, on receipt of the usual "cover," in Railways Home and Foreign, Mining Shares, Foreign Bonds, and certain Miscellaneous Securities.

"THE WEEK."—A SEPARATE EDITION from that which appears in the Mining Journal is published every Wednesday evening, containing "Notes and Hints on the Stock Markets," with Closing Prices. May be had on application.

BANKERS: LONDON AND WESTMINSTER, Lothbury.

Messrs. J. TAYLOR AND CO.,

MINING ENGINEERS AND INSPECTORS,

86, LONDON WALL, LONDON, E.C.,

Have Agents in England, Scotland, Wales, and on the Continent.

Messrs. EKINS AND CO.,

STOCK AND SHARE DEALERS,

14, QUEEN VICTORIA STREET, LONDON, E.C.

BANKERS: METROPOLITAN.

JOHN B. REYNOLDS, STOCK AND SHARE DEALER,

37, WALBROOK, LONDON.

ESTABLISHED 20 YEARS.—BANKERS: LONDON AND SOUTH-WESTERN.

Confidential enquiries quickly answered. Telegrams promptly attended to. Close prices and accurate intelligence may be relied upon.

MR. T. E. W. THOMAS, STOCK AND SHARE DEALER,

3, GREAT WINCHESTER STREET, E.C.

The following are prices at which business can be done:—

Buyers. Sellers.

Don Pedro 13s. 14s. Marke Valley £1 10s. £1 1½s.

East Caradon 13s. 14s. Parys Corporation 15s. 16s.

East Lovell 3½s. 3½s. Tankerville 3½s. 3½s.

East Van 2½s. 2½s. West Peavor 3½s. 4s.

Glyn and Van Consols 9s. 11s. Wheal Oreb 5½s. 5½s.

United 2s. 2½s. Wheal Grenville 5s. 5½s.

Herodfoot 2s. 2½s. Wheal Jane 3½s. 4s.

Leadhills 2½s. 2½s.

Friday Evening, October 3rd, 1879.

MR. W. MARLBOROUGH, STOCK AND SHARE DEALER,

29, BISHOPSGATE STREET, LONDON, E.C.,

Can SELL the following SHARES at prices annexed:—

100 Bedford United, 9s. 20 Herodfoot, £2 4s. 6d. 10 Richmond, £8 16s. 3d.

60 Chontales, 5s. 9d. 25 Leadhills, £2¼. 200 Rosa Grande, 3s. 6d.

100 Colombian Hydraulic, 5s. 6d. 5 Lisburne, £25s. 25 South Darren, 27s. 6d.

5s. 6d. 20 Marke Valley, 21s. 75 Tamar Silver-Lead.

40 Don Pedro, 14s. 10 Minera, £9 7s. 6d. 50 Victoria (London)

30 East Caradon, 23s. 20 Morfa Du, 15s. Mining Company

20 East Lovell, £4. 20 N. Quebrada, £2 16s. 3 20 West Chiverton, £3.

25 East Van, £2 3s. 20 Nouveau Monde, 14s. 3 20 West Holway, £1¼.

20 Eberhardt, £1 18s. 9d. 25 Pateley Bridge, 17s. 6d. 50 Yorke Peninsula (pref.)

80 Pestarene, 4s. 9d. 100 Port Phillip, 8s. 9d. 15s. 9d.

20 Great Holway.

NORTH D'ERESBY MOUNTAIN—SPECIAL BUSINESS.

THE "DIFFERENTIAL" PUMPING ENGINE

(DAVEY'S PATENT),

FOR

DRAINING MINES, WATER SUPPLY OF TOWNS, IRRIGATION,

SUPPLYING DOCKS, PUMPING SEWAGE, and GENERAL

PUMPING PURPOSES

HATHORN, DAVEY, AND CO.,

LEEDS.

HATHORN, DAVEY, and Co. have Patterns of "Differential" Engines of all

sizes, from 5 to 500-horse power, and have facilities for supplying very powerful

Engines and Pumps at a short notice.

See Illustrated Advertisement every alternate week.

MR. CHARLES THOMAS,

MINING AGENT, STOCK AND SHARE DEALER,

3, GREAT ST. HELEN'S, LONDON, E.C.

MR. ALFRED THOMAS,

MINING AGENT, AND STOCK AND SHARE DEALER,

10, COLEMAN STREET, LONDON, E.C.

"HOW TO TAKE ADVANTAGE OF THE COMING RISE IN PRICES,"

By ALFRED THOMAS, 10, Coleman-street, E.C.

Will be forwarded to Investors upon application.

MR. EDWARD ASHMEAD, 62, CORNHILL, LONDON,

LONDON MINE AGENT, ACCOUNTANT, AND AUDITOR.

TO INVESTORS, SHAREHOLDERS, TRUSTEES.

SAFE DIVIDEND INVESTMENTS PAYING 4 TO 6 AND 10 PER CENT.

PER ANNUM ON PRESENT OUTLAY.

SHARP'S INVESTMENT CIRCULAR.

The OCTOBER EDITION (post free).

SHOULD BE CONSULTED BY INVESTORS AND SHAREHOLDERS.

It is a Reliable "Guide," giving valuable information and Sound Advice, &c.

It gives Market prices; Dividends upon outlay, when payable; Reports, &c., &c.

IT CONTAINS ALL THE SAFE INVESTMENTS IN THE FOLLOWING:—

English, Foreign Railways. Insurance, Gas, Waterworks.

Preference, Debenture Stocks. Colonial, Foreign Stocks.

Indian, American Stocks. British, Foreign, Colonial Mines.

Bank, Financial Shares. Tea, Land Shares.

Tramway, Telegraph Shares. Shipping, Dock Shares.

Municipal Bonds. Miscellaneous Shares, &c., &c.

HENRY GOULD SHARP, STOCK AND SHARE BROKER,

42, POULTRY, LONDON, E.C.—ESTABLISHED 1852.

BANKERS: LONDON AND WESTMINSTER, Lothbury, London, E.C.

MR. THOMAS THOMPSON, JUN., STOCK BROKER,

16, ST. SWITHIN'S LANE, E.C.

Mr. THOMPSON transacts business in every species of Stock Exchange and

Mining Securities.

Mr. THOMPSON affords reliable information to investors, and can give, when

desired, a list of first-class Stocks and Shares, yielding 4 to 10 per cent. dividends

upon present prices.

Mr. THOMPSON's weekly Circular may be had on application.

Messrs. ENDEAN AND CO., STOCK AND SHARE

DEALERS, 85, GRACECHURCH STREET, LONDON, E.C.

THE CREBOR DISTRICT.—Having our own independent agents we can

furnish reliable information respecting mining properties in this neighbourhood

on our usual terms.

TAMAR MINE.—This mine is in the same district as Crebor, and shares should

be bought at present low price.

BODIDRIS MINE.—Splendid specimens of ore from the Maes-y-pwll lode, just



PARIS EXHIBITION, 1878.

GOLD AND SILVER MEDALS AWARDED for
Steam-Engines & Boilers, also the Special Steam Pump,
with Holman's Condenser & Compound Pumping Engine.



TANGYE BROTHERS AND HOLMAN,

HYDRAULIC AND GENERAL ENGINEERS

CORNWALL HOUSE, 35, QUEEN VICTORIA STREET, LONDON, E.C.,
AND BIRMINGHAM, (TANGYE BROTHERS), CORNWALL WORKS SOHO.

The "SPECIAL" DIRECT-ACTING STEAM PUMP,
WITH
Holman's Patent Self-acting Exhaust Steam Condensers.

UPWARDS OF 12,000 "SPECIAL" STEAM PUMPS ARE IN USE.

After eight years of successful application for all purposes to which steam-driven pumps can be applied, THE "SPECIAL" STEAM PUMP STILL MAINTAINS THE FIRST POSITION IN THE MARKET, notwithstanding that it alone—of all direct-acting pumps—has been subjected to the great variety of severe tests that must be encountered in such a period of time. Some valuable improvements have been suggested in the course of a long experience, and their adoption has rendered the apparatus at once the simplest and most certain in action. There is absolutely no extraneous gear, and the steam cylinder is no longer than the pump. The valves are of easy access, and are suited for pumping fluids and semi-fluids of almost any consistency.

Holman's Condenser

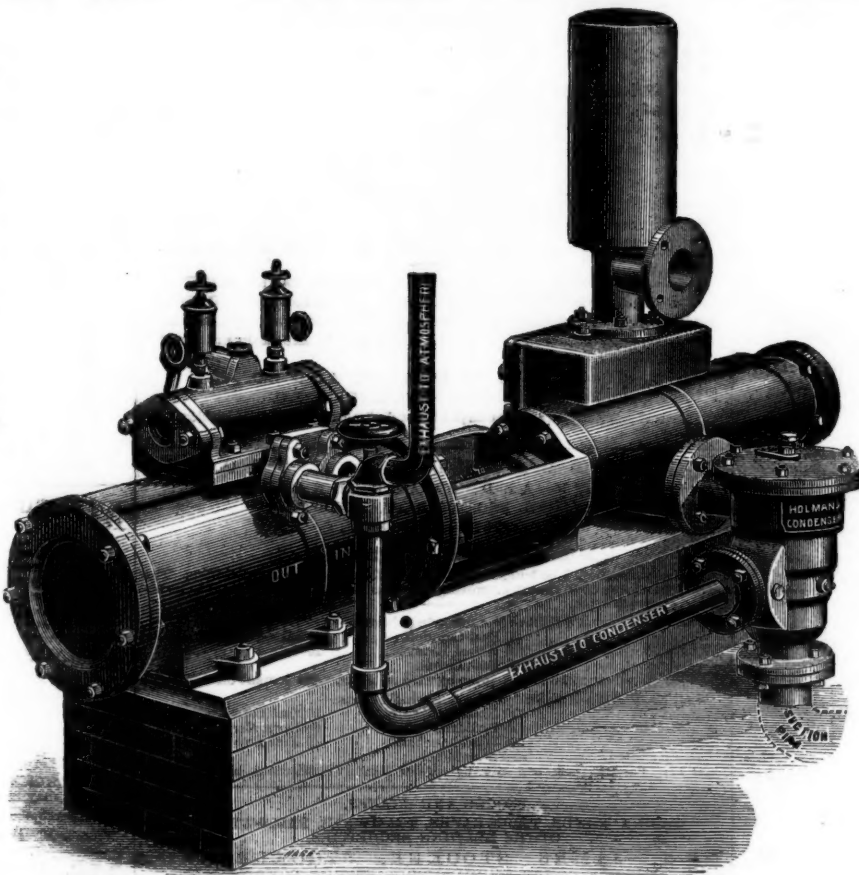
—
TURNS WASTE STEAM INTO
GREAT POWER.

—
SAVES HALF ITS COST IN PIPES AND
CONNECTIONS.

—
PREVENTS ALL ESCAPE OF STEAM IN
MINES OR ELSEWHERE.

—
REQUIRES NO EXTRA SPACE.

—
SAVES TWENTY TO FIFTY PER CENT.
OF FUEL.



WILLIAM ELLIOT, Esq., of the *Weardale Iron and Coal Company*, writes under date Sept. 17th, 1875, as follows:—"We have now THIRTY-FIVE of your SPECIAL STEAM PUMPS in operation at the various collieries under my charge—some of them employed pumping water out of our pits to the depth of 50 fms.—others employed in the pits, and a good many feeding Boilers. I have no hesitation in saying that we have found them the Cheapest and Best Pumps of the kind we have tried. I can with confidence recommend them to intending purchasers."

Messrs. BURT, BOULTON, and HAYWOOD, *Chemical Manufacturers*, of London, have FORTY of the "SPECIAL" STEAM PUMPS in use at their works.

HOLMAN'S CONDENSERS

Are made to suit any size and kind of Steam Pump. They form a part of the suction pipe of the Pump, and while they effectually condense the exhaust steam they produce an average vacuum of 10 lbs. per square inch on the steam piston, increasing the duty of the Engine and effecting a saving in fuel of from 20 to per cent.

In Mining operations these Condensers will be of great value.

All Boiler Feeders are recommended to be fitted with these Condensers, as not only is the exhaust steam utilised in heating the feed water, but is returned with it into the boiler.

GREAT REDUCTION IN PRICES.

The following sizes are suitable for low and medium lifts:—

Diameter of Steam Cylinder ...In.	3	4	4	4	5	5	5	6	6	6	6	7	7	7	7	7	8	8	8	8	8	9	9	9	9	9	10	10
Diameter of Water Cylinder ...In.	1½	2	3	4	3	4	5	3	4	5	6	3	4	5	6	7	4	5	6	7	8	5	6	7	8	9	5	6
Length of StrokeIn.	9	9	9	9	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	18	12	12	12	18	24	12	12
Gallons per hour	680	815	1830	3250	1830	3250	5070	1830	3250	5070	7330	1830	3250	5070	7330	9750	3250	5070	7330	9750	13,000	5070	7330	9750	13,000	16,500	5070	7330
Price of Special Pump ...£	16	18	20	25	22 10	27 10	32 10	25	30	35	40	30	35	40	45	50	40	45	50	55	65	50	55	60	70	85	55	60
Extra, if fitted with Holman's Condenser and Blow-through Valve	£7	£7	£9	£11	£8 10	£11 10s	£12 10s	£9	£12	£15	£15	£10	£13	£15	£16	£22	£13	£16	£16	£22	£22	£16	£16	£23	£24	£35	£17	£17

CONTINUED.

Diameter of Steam Cylinder..In.	10	10	10	10	12	12	12	12	12	12	14	14	14	14	14	14	16	16	16	16	16	18	18	18	18
Diameter of Water Cylinder..In.	7	8	9	10	6	7	8	9	10	12	7	8	9	10	12	14	8	9	10	12	14	9	10	12	14
Length of StrokeIn.	12	18	24	24	18	18	18	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Gallons per hour	9750	13,000	16,519	20,000	7330	9750	13,000	16,519	20,000	30,000	9750	13,000	16,519	20,000	30,000	40,000	13,000	16,519	20,000	30,000	40,000	16,519	20,000	30,000	40,000
Price of Special Pump..£	65	75	90	100	75	80	85	110	120	140	110	120	130	140	160	180	140	150	160	180	200	180	190	210	230
Extra, if fitted with Holman's Condenser and Blow-through Valve	£28	£24	£35	£35	£20	£27	£27	£38	£38	£50	£28	£28	£40	£40	£55	£55	£28	£40	£40	£55	£55	£45	£45	£56	£60

Intending purchasers of Steam Pumps would do well to observe the great length of stroke, short steam cylinder, and short piston of the "Special" Steam Pump, as compared with the short stroke, long steam cylinder, and long piston of the Pumps of other makers, as the efficiency and durability of the machine, and the space occupied by same, greatly depend upon this. The advantage of long strokes will be obvious when purchasers are reminded that each set of suction and delivery valves of a "Special" Steam Pump with 24 in. stroke, running at 120 ft. per minute, would open and close only 30 times per minute, as against 120 times per minute in a Pump with only 6 in. stroke performing same duty.

The "Special" Steam Pump can be worked by Compressed Air as well as by Steam.

HUNDREDS of these PUMPS are USED for HIGH LIFTS IN MINES, for which purpose they are made with 21, 24, 26, 28, 30, and 32-inch Steam Cylinders, and 36 48 and 72-inch Strokes.

The following Testimonial gives one Example of the Power Gained by the action of Holman's Patent Condensers:—

NORLEY COLLIERY, WIGAN.

Messrs. TANGYE BROTHERS AND HOLMAN.

SIR,—I have great pleasure in recording my entire satisfaction with the working of the Holman's Patent Steam Pump Condenser which you have supplied to us. The complete condensation of the steam is, apart from its value in the brief economic sense, a most valuable feature in the drainage of underground work.

The perfect manner in which this important result is accomplished by your Condenser is extremely creditable to you, and merits the thanks and commendation of the Mining Engineer. When we start the "Special" Steam Pump the Condenser commences working automatically, and maintains a constant vacuum of 10½ lbs. per square inch, even when we run the Pump upwards of 80 strokes (106 feet) per minute. It may perhaps be interesting to you to know that when we were running the Pump at 84 strokes (165 feet) per minute, the steam gauge

indicating a steam pressure of 36 lbs. per square inch, 80 yards from the Pump and the Condenser vacuum gauge on the exhaust pipe indicating a steady vacuum of 21½ inches, I turned the exhaust steam from the Condenser into the atmosphere, when the speed at once fell to 44 strokes per minute. The working economy thus shown is really so great that the cost of the Condenser must be saved in a very short time.

(Signed)

J. THOMPSON.

NORTH OF ENGLAND HOUSE
SOUTH WALES HOUSE...

TANGYE BROTHERS, ST. NICHOLAS BUILDINGS, NEWCASTLE-ON-TYNE.
TANGYE BROTHERS AND STEEL, Tredgar Place, NEWPORT, Mon.; and Exchange Buildings, SWANSEA.

Lectures on Practical Mining in German 1.

CLAUSTHAL MINING SCHOOL NOTES.*

BY J. CLARK JEFFERSON, A.R.S.M., WH. SC.,
Mining Engineer, Wakefield.

(Formerly Student at the Royal Bergakademie, Clausthal.)

[The Author reserves the right of reproduction.]

The publication of the Lecture this week is unavoidably postponed.

* Being Notes on a Course of Lectures on Mining, delivered by Herr Berggrath Dr. von Groddeck, Director of the Royal Bergakademie, Clausthal, The Harz North Germany.

THE IRON AND STEEL INSTITUTE AT LIVERPOOL.

One of the excursions arranged for the members on Thursday last embraced the Garswood Hall and Pemberton collieries. Several circumstances tended to invest this excursion with peculiar interest. The Lancashire coal field is one of the most interesting and progressive in the country. Between 1871 and 1875 the number of new collieries opened in the County Palatine was 144, being 9 more than the number of new collieries opened in South Staffordshire and Worcestershire, the next most progressive of our English coal fields. Within the same period the output of coal in the Lancashire coal field advanced from 13,851,000 tons to 17,076,000 tons, being an increase of 3,225,000 tons, or nearly 200,000 tons more than the output of the next largest coal field. The same relative progress has continued up to the present day, Lancashire being almost the only coal field in the United Kingdom that has made substantial progress during the last two years of depression. But this is not the only remarkable feature of the Lancashire coal basin; for it has at once some of the largest, the deepest, and the most fiery pits in the world, and as these three features involve the solution of the several important problems of economical working, practicable depth in mining, and the safety of human life, the facilities accorded for inspecting one or two of the most extensive collieries were naturally taken advantage of to a considerable extent.

At the Garswood Hall Colliery some of the members had an opportunity of witnessing Mr. Smethurst's experiments with safety lamps in explosive gas. A good supply of pure fire-damp from that most dangerous of Lancashire coal beds, the Wigan Six-foot or Nine-foot seam, has enabled Mr. Smethurst to carry to the surface and control at will a vitiated and explosive atmosphere, in which he is enabled to test the comparative value of safety lamps without danger to himself, or those assisting in the experiments. To carry out his tests, he constructed with wooden boards a model of a coal working, consisting of two levels, and a cut through of 12 in. by 6 in. section, with three drifts out of the top level, 12 by 12 in., having a brattice up the centre, and glasses placed in the sides in various places so as to allow of the effect produced by an explosion to be fully observed. A sound Davy lamp was then placed at the top end of the drift No. 3, nearest the upcast; drift No. 2 was filled with gas, and the ventilating current, which had a velocity of 9 ft. per second, was charged with gas. As soon as the gas showed in the lamp the brattice in No. 2 was altered to allow the stored-up gas to be carried by the current on to the lamp, and a heavy explosion soon followed, which, however, did practically no damage in the drift where the lamp was, nor in No. 2 drift, except to split the boards on the top and bottom; but No. 1 and the cut through were completely destroyed, thus showing that the greatest damage is not necessarily caused at the seat of the explosion. Mr. Smethurst's experiments have led him to the conclusion that the Davy Lamp, as ordinarily constructed, is not safe in coal mines giving out fire-damp, more especially as their working necessitates increased ventilation, and, therefore, at least in some parts, increased velocities. Of the many lamps he tested the Mueseler, which is self-extinguishing, gives the best and steadiest light, and proves most readily the existence of a small percentage of gas in the ventilating current. The Clanny lamp is very little, if any, safer than the Davy lamp; the Elnon is quite safe, but too sensitive; while the Gray and Pelton are safe, but very heavy and rather complex in construction. Mr. Smethurst proposes to continue his experiments, which are of such a valuable character that they can hardly fail to aid materially the labours and conclusions of the Royal Commission now enquiring into the perplexing and important question of the loss of life in our coal mines.

A considerable party visited the fine collieries of Messrs. Blundell, at Pemberton, near Wigan, where they were conveyed by a special free train, kindly provided by the local committee. The pits are two in number, each 1890 ft. in depth—a depth which, although not equal to that of the Rose-bridge and several other collieries in the Wigan district, is yet considerably more than that of English collieries generally. The shafts are each 16 ft. by 18 ft. in diameter, and are fitted with iron rail guides. The pits are ventilated by a Guibal fan, 46 in. diameter, with duplicate 36 in. engines. The winding machinery is of the most improved description, and is actuated by two pairs of engines, each of 36 in. cylinders. Revolving screens are used for screening the slack. The heapsteads are constructed of wrought-iron. A 70 in. direct-acting Cornish pumping-engine keeps the pits clear of water. A number of the party visiting Pemberton colliery descended to examine the underground workings, while the remainder proceeded to inspect the works of the Wigan Coal and Iron Company—one of the most extensive concerns of its kind in Lancashire, having no fewer than 10 blast-furnaces in addition to extensive collieries and rolling mills. The visitors were shown over the works by Mr. Hewlett. The structural features of the Wigan works call for very little remark. They are chiefly noted for the production of special qualities of pig-iron, produced from the pure foreign ores which are largely imported from the company's own royalties.

In Liverpool itself and the immediate neighbourhood the most ample provision was made for enabling members of the Institute to spend the limited time at their disposal to the best advantage. Many of the leading foundry, engineering, shipbuilding, and other works were thrown open for their inspection. At the Bankhall Works of Messrs. John H. Wilson and Co. the manufacture of steel was seen carried on by Noad's process, which is simply a recent modification of the ordinary crucible system, and not, therefore, likely, whatever its merits, to come into extensive use. The extensive works of Messrs. Thomas Brassey and Co. at Birkenhead came in for a share of attention. Here both iron and steel bridges, the Seacombe Pier landing-stage, and a steel twin screw steamer were seen in course of construction. For the benefit of members interested in the chemical manufacture the alkali works of Messrs. John Hutchinson and Co. at Widnes were thrown open, allowing the manufacture of soda ash, caustic soda, bicarbonate of soda, soda crystals, and the recovery of sulphur from black ash waste to be seen in operation in a locality which, although now repulsive and noisome, was formerly one of the most picturesque spots on the Mersey. The tobacco factory of Messrs. Cope Brothers, in Lord Nelson-street, was visited by many friends of the "weed," and well repaid the visit. This is one of the largest tobacco factories in the world, rivalling even the great national establishments of Seville and Barcelona. It gives employment to about 1400 hands, of whom about 1000 are women, and pays over 10000l. a day duty on the various products turned out. Cigars and cigarettes are extensively produced as well as tobacco, the former at the rate of nearly 30 millions per week, and arrangements are now in progress whereby this enormous yield will be still further augmented.

From a scientific point of view the meeting was certainly up to the average. It was practically allowed that the process which was expected before now to make available for the steel trade all the ores of iron in Great Britain had not quite surmounted every difficulty; but this, as Mr. Bell generously remarked, was not likely to excite the surprise of any who knew how slowly new metallurgical processes were usually evolved from the region of experiment and doubt; and nothing could be more satisfactory than to learn from the same high authority that the steel rails made for the North-Eastern Railway from Cleveland ore had withstood very severe tests and could be absolutely depended on. Messrs. Bolckow, Vaughan, and Co. are now going more largely into the manufacture of steel rails from Cleveland ores, and both in Germany and in France the process is being adopted on a working commercial scale. Before leaving the subject of de-

phosphorisation, we may mention that the rival claims to the discovery of the process referred to have just been adjudicated upon by Sir William Thompson, who has found that Mr. Snelms, of the West Cumberland Ironworks, is entitled to a substantial share in the profits of the invention as well as the two gentlemen with whose names the process has hitherto been associated. It is expected, therefore, that, in justice to all concerned, some name will be found that will describe the character of the process rather than identify it with the names of any individuals. Mr. Wood's papers point to the probability of the use of timber being before long entirely superseded by that of glass or iron—a transition that will obviously be highly beneficial to the latter industries, while it will remove any apprehensions that otherwise might come to be entertained respecting the duration of our available supplies of timber. The paper submitted by Mr. Davis indicated that progress is being made in the direction pioneered by Sir Joseph Whitworth, and that we may before long see in general operation a simple and inexpensive system that will enable steel of a sounder and more reliable quality to be produced. Mr. Ratcliffe's paper opened up a subject that has a deep interest for engineers and shipbuilders, pointing as it did to the use of a material that would enable forgings to be made of a more uniform quality and capable of resisting greater strains without any increase of cost. Mr. Wrighton's and Mr. Picton's papers were each in their way excellent, although they did not necessarily possess the same high practical interest as the others.

VISIT TO THE CREWE WORKS.

A special train, provided free of cost by the directors of the London and North-Western Railway Company, conveyed a large party of the members to Crewe, where they were shown over the magnificent works of the company, and where both the Bessemer and the Siemens-Martin processes of steel manufacture are carried on. The Crewe works are said to be the largest railway works in the world. They were established in 1843 for the purpose of repairing the locomotive engines, carriages, and wagons required for the Grand Junction Railway, afterwards absorbed in the more extensive North-Western; machinery for the manufacture of rails was added in 1853, and in 1857, on amalgamation of the northern with the north-eastern divisions, the Crewe works became the centre of the locomotive and carriage departments of the northern division of the line. In 1864 works were erected for the manufacture of Bessemer steel, and in 1869 or 1870 an open hearth steel-making plant was added, which has since been largely used in the production of steel for locomotive purposes. Upwards of 2000 locomotives have been made at the Crewe works, and as many as 146 in one year. No other works in the country have made and used steel so extensively for railway purposes. The works, as a whole, cover an area of 27 acres, and employ over 5000 hands. After the members of the Institute had been entertained to a very excellent luncheon by the railway company, they were shown the Bessemer steel converting-house, where four 5-ton converting vessels were seen in operation. The pig-iron is first melted in an ordinary cupola, to which the air is supplied by a Roots blower, whence it is run into one of the converting vessels; the air is supplied to the converting vessels by a pair of horizontal blowing engines of 450-horse power, by Hick and Co., Bolton. The cogging mills, tyre rolling mills, plate rolling mills, merchant mills, mills for rolling spring steel, &c., were examined with interest; the more so that there are, perhaps, no works that can boast of greater perfection in their mechanical arrangements. From the rail works and the points and crossing departments the visitors were conducted by a staff of officials to the boiler shop, which is 350 ft. long and 107 ft. wide. Here they saw locomotive and stationary boilers being made of steel. The party were afterwards conducted in succession through the boiler shop, smithy, the flanging shop, the plates stores, the boiler-fitting shop, the engine-repairing shops, and the steel-forging department, where they saw the plate and large angle mills and the upright 80-ton duplex steam-hammer, the tyre and wheel shop, the iron forge, the paint shop, the brass and iron foundry, the millwright's shop, the pattern shop, and the saw mills; and they finally were pulled up through the wheel forge and the spring smithy in the locomotive erecting wheel and fitting shops, more confused, probably, than enlightened by the bewildering size of the vast establishment and the variety of different occupations carried on. The whole time allowed for the inspection of the works was only three hours. At 6 o'clock the special train brought the members back to Liverpool.

TOUGHENED GLASS.

A very interesting paper on the application of toughened glass to permanent ways was submitted by Mr. Wood, who stated that the glass is moulded into various forms to suit the different requirements, the cooling of the glass being so regulated that the radiation from each point of the surface corresponds to the thickness of the glass, thus enabling the casting to be equally affected throughout when undergoing the tempering or hardening process. The regulation of the radiation or absorption of the heat in the thicker parts of the casting is effected by using iron hollow moulds and by circulating cold water or cold air at those points where the glass is thickest, so that the casting cools equally in every part. The mode of toughening the glass is both curious and instructive, affording, as it does, a complete contrast to that of steel. The glass is heated to a high temperature, and then plunged into a bath of cold oil or other liquid, the result being that it becomes converted from its own characteristic brittleness to the remarkable tough fibrous material known as toughened or tempered glass. But to produce the desired effect and obtain the full advantages of the toughening process upon articles of great strength and thickness, Mr. Siemens found that the hardening or tempering could be effected in the moulds themselves—first, by carefully protecting the glass from coming into direct contact with the mould, to prevent chilling the surface of the glass; and, secondly, by the use of hollow moulds for maintaining a uniform temperature all over the casting during the hardening. The temper is modified in these thick castings by passing them through an annealing oven. The moulds are chiefly protected by layers of wire gauze, perforated metal, or plaster of paris, varying in layers or thickness according to the rapidity and energy required in tempering and the nature and composition of the glass, this energy being increased at the thick parts of the casting before alluded to by the circulation of cold water or air through the cast-iron hollow moulds. So far as experience has shown, all kinds of glass are equally affected by the process. The time might come, Mr. Wood thought, when we should not only see glass sleepers, but glass tools and implements, caves, troughing, spouting, furniture, and many other things. The average transverse resistance of the glass sleepers laid on the North Metropolitan trams was found, supported at 30 in., to be about 5 tons. The inventor, Mr. Bucknall, proposes to make these sleepers out of blast furnace slag, under Mr. Bashley Britain's patents, combined with Mr. Siemens' toughening process. In the course of the discussion which followed Mr. HENDERSON, of Irvine, and Mr. BUCKNALL described some of the severe tests which had been withstood by the toughened glass.

IRON AND STEEL TABLES.—The third edition, revised and enlarged, of Mr. CHAS. H. JORDAN'S valuable little series of "Tabulated Weights of Angle, Tee, Bulb, Round, Square, and Flat Iron, and Steel," &c., has just been published (London: E. and F. N. Spon, Charing Cross), and will be found of general utility to all who are in the habit of using manufactured iron and steel. The author being a member of the Institution of Naval Architects, and surveyor to the Underwriters' Registry for Iron Vessels, has had unusual facilities for ascertaining the precise kind of tables most required, and the excellent reception given to the first and second editions, which were noticed in the *Mining Journal* a few years since, leaves no doubt that his labours were appreciated. It is very commonly complained with regard to tables either that they are so bulky that it is more troublesome to consult them than to make the calculation oneself, or that they are so incomplete as to be useless. Mr. Jordan has avoided both these extremes by giving in a compact little volume 5 in. by 3 in., and 4 in. thick, all the information that is likely to be required with respect to the descriptions of metal mentioned. The tables show the weight of a superficial foot in pounds, and number of superficial feet per ton of iron and steel plates of various thicknesses; of sheet-iron and steel per BW. and Whitworth

gauges; of half-round, feather edge, and convex iron and steel; of Butterley beams, and deck and ceiling bolts and nuts. They also show the thickness of iron and steel plating of various weights; the number of rivets in 100 ft. at various spacings; the sectional areas of angle and T-iron or steel; and of iron or steel bulb-plate; the superficial areas of plates, and the decimal equivalents of the fractions of an inch and divisions of a foot. In addition to these there are a few sheets of ruled paper for receiving necessary memoranda. The tables are well arranged and admirably printed, and will certainly be as well received as the previous editions.

CASELL'S TECHNICAL EDUCATOR.—The advantages to be anticipated from the extension of technical education has been so fully demonstrated, and is now so generally admitted, that the question is no longer whether it shall be given but how best to give it. Considering the class to which the desired students belong, it is essential that both their time and their money should be economised. On returning from a hard day's work the workman requires that whatever he undertakes with a view to the improvement of his mind shall give him results quickly, and as his pecuniary resources are usually limited it is essential that he should be spared the necessity of expensive text books. In Cassell's Technical Educator—the first part of which is issued this month—his wants are exactly met; he is offered an abundance of useful and necessary information, written in a clear, concise, and practical style, specially adapted for self-instruction, whilst the total outlay demanded of him is 7d. per month for 24 months. At the end of that period he will be in possession of a handsome technical cyclopaedia of permanent value. The work is one which every artisan should study, for whatever branch of industry he may be engaged in he will find that it will afford him increased facilities for improving his position.

THE SCOTCH MINING SHARE MARKET—WEEKLY REPORT AND LIST OF PRICES.

Since last report (September 11) the markets have showed more buoyancy than for a long time past, with at times considerable excitement. A large business has been transacted in coal and iron, copper, lead, and tin mining shares at a substantial rise in prices. A recovery in trade is always accompanied by a rush like this for mining, so that those who wish to invest in this department should not delay. The improvement in the iron trade is now assuming such important dimensions that it is certain to react favourably on other departments of home industry. Although the harvest yield must be greatly below an average, no material rise in the price of grain is expected, therefore with cheap food, cheap money, and political affairs quiet, the revival of confidence which has set in has a sound basis to rest upon. A strong revival of speculation at New York and Paris is also making things more cheerful, and everywhere there is more business doing, although great caution is displayed. The current settlement takes place on October 15.

In shares of coal and iron companies the alterations in the past three weeks are of great importance. Shotts stand first at an advance of 34l. per share; next, Bolckow, Vaughan, and Co., A. 3l.; Monkland (pref.), 42s. 6d.; Glasgow Port Washington, A. 27s. 6d.; Monklands, 22s. 6d.; Glasgow Port Washington, B. 20s.; Clyde Coal, 17s. 6d.; Benhar and Marbella each, 16s.; Chillington, 15s.; Omoa and Cleland, 6s. 9d.; Lochore and Caplehead, 5s.; Ebbw Vale and Scottish Australian each, 2s. 6d. After such an important rise, of course, there is a difference of opinion how prices will now go. But, considering that prices were far too low previously, and confidence is felt in the permanence of the revival in the iron trade, because it seems to have extended to all countries, the probability is in favour of higher prices still. The rise is due to the improvement in metals, and if the one keeps strong the other will too. The sharp rise in iron is owing to the decreased output, combined with American purchases, and this indicates a better state of trade. It is said the extension and renewals of railroads in the United States will entail the purchase of nearly 500,000 tons of steel rails in this country within the next six months, so that the coal and iron trades must become very prosperous. Already the ironmasters are opening mines which have been closed for a long time, and in the West of Scotland the colliers and miners have got their wages twice advanced 8d. per day in the last fortnight. The furnaces which have been put out of blast in order to throw coals on the market may be blown in or not, just as the firms who were in the agreement choose for themselves. Everything, therefore, in this department is looking most encouraging, and certainly at the Shotts Ironworks trade must be very good, as they have just raised the men's wages 10 per cent. without being asked for it by the men.

Colliery shares are in good demand, and even those of little real value are rising. Charles Cammell and Company (Limited) have declared an interim dividend at 5 per cent., being the same as last year. This being one of the largest ironworks in the country their dividend is always regarded as an indication of the condition of the iron and steel trades, and the present announcement is viewed very favourably. Glasgow Coal Exchange shares, 35s. to 40s. Benhar touched 50s., but are now easier. Andrew Knowles and Sons are 11s. Ashton Vale, 5s. Bilbair Iron (preference), 25s. Bilson and Crump, 20s. Brown, Bayley, and Dixon, 20s. Bolckow, Vaughan, D. 63 to 65; ditto, B. 35 to 37; ditto (stock), 104 to 105; and ditto 5 per cent. preference, 18½ to 19. Cardiff and Swansea, 15s. Chillington, 65s. to 75s. Ebbw Vale, 80s. to 90s. Great Western, B. 30s. Hamstead, 12s. John Bagnall and Sons, 20s. John Brown and Co., 33s. 6d. Monkland, 55s.; ditto (preference), 54½ to 55½. Mersey, 70s. 6d. Miners' Metal, 12½. Newport, Abernethy, 9s. New Shirlston (preference), 75s. Nerbudda, 7s. 6d. Omoa and Cleland, 22s. to 23s. Palsall, 10s. Rawyards, 10s. Rhymney, 15s. Sandwell Park, 12½. Scottish Australian, 37s. 6d. to 42s. 6d. Shotts touched 77½, or just about double the price (40) they were at date of last report. Between 40 and this price, however, not much business was done, as sellers could not be got, they no doubt considering the stock worth more. They are now easier at 72 to 74, and cheap, as far as 1000l. per share. South Wales, 50s. Sheepbridge, 45s. Staveley, A. 40s. premium; ditto, B. 20s. premium; ditto, C. 64; and ditto, D. 104. Thorp's Gawber Hall, 20s. to 40s. Tredegar, A. 11 to 15. West Cumberland, 55s.

In wages of home collieries the tendency has been strongly upwards, as the copper market is rising under the belief that the overvaluing from Chile is about ended. The principal rise is on Tharsia, about 4l. per share, and though these shares may not continue to rise at that rate, they will eventually be much higher, as in good times they used to sell over at 50. They yield at present a good return on the money invested, and the property is, perhaps, the only mining one in the world which can be considered perfectly safe as a permanent investment. Rio Tinto 5 per cent. have also risen 2½s. per share. Rio Tinto shares, 18s. 9d.; Huntington, 17s.; Canadian, 5s. 9d.; Rio Tinto 7 per cent., 5s.; Panullico and Yorke Peninsula (pref.), each 2s. 6d.; Cape 28 to 29; English and Australian, 30s.; Fortuna, 80s.; Linars, 80s.; New Queensland, 60s.; Panullico, 40s.; Rio Tinto 5 per cent., 7s.; Yorke Peninsula, 2s. to 4s.; ditto, pref., 10s. to 15s.

In shares of home mines a revival in the prices of shares and the prospects of mining is sustained by the important rise in the metal markets generally. Speculation is being stimulated in this direction after a period of prolonged depression, and no doubt great profits are now to be made. The principal demand has been for tin shares at higher prices, but there is great room for improvement yet. The agent's report of Killbreth is still favourable. Glasgow Caradon Copper shares have advanced 3s. on the original shares and 3s. 6d. for the new ore; the result of their last monthly sale is given below. There is plenty of ore in this mine, and it is well managed, so that the shares are certain to have a good rise. The agent's report from West Craven Moor states that all the points are progressing favourably. Assheton are at 12s. 6d.; Botallack, 35s.; Bedford United, 15s.; Caron, 10s.; Cook's Kitchen, 45s.; Carn Brea, 34; Clementina, 15s.; Devon Consols, 65s.; Dolcoath, 33; Derwent, 5s.; East Caradon, 20s.; East Lovel, 65s.; East Van, 55s.; East Chiverton, 40s.; Glasgow Caradon, 25s.; Great Laxey, 15½ to 16½; Grogwinion, 45s.; Gunnislake (Clifters), 15s. to 20s.; Killbreth, 5s. to 6s.; Leadhills, 51s.; Marke Valley, 15s.; Parry's Mountain, 15s. to 20s.; Red Book, 10s.; Roman Gravel, 25s.; South Cambrian, 20s.; South Frances, 3½; South Condurrow, 12 to 13; South Caradon, 52; Tincroft, 11; Tankerville, 70s. to 75s.; Van, 16½; West Bassett, 5½; West Frances, 5½; West Chiverton, 50s.; West Seton, 27; West Wye Valley, 11s.; West (Tolgu), 27; Wheel Ury, 17s. 6d.; Wheel Peavor, 12½; Wheal Crebor, 90s.; Wheal Jane, 65s.; Wheal Grenville, 5; Wheal Bassett, 45s.; Wheal Kitty (St. Agnes), 10s. to 15s.

In shares of gold and silver mines Richmonds are 3s. 9d. higher per share, after having been at 8½; the weekly runs have been from 32,000 to 335,000. The yield at St. John del Rey in the second division of September has improved to 74. The accounts for July show a profit of 622l. at Frontino and Bolivia; a loss of 1702l. at Antioquia; and at Colorado United a profit of 6150l. after paying 32500l. for winter supplies of wood, &c. Australasian Mines are at 5s. Don Pedro, 10s. to 15s.; Eberhardt, 37s. 6d.; Exchequer, 3s. 9d.; Flagstaff, 2s. to 4s.; I. X. L. 1s. 2d. to 5s.; Javali, 5s. to 7s.; London and California, 15s.; Last Chance, 11s.; Port Phillip, 7s. 6d. to 10s.; Pestarena United, 2s. 6d. to 5s.; ditto (preference), 15s. to 20s.; Sierra Buttes, 40s.; United Mexican, 55s.

In shares of oil companies Uphalls have advanced 27s. 6d. per share; Broxburn, 20s.; Young's Paraffin, 15s.; and Oakbank, 3s. 6d. New Patent Candle shares are at 21½; Price's Patent Candle, 8 to 9; and Runcorn Soap, 6½d.

In shares of miscellaneous companies London and Glasgow Engineers are wanted at 10s. per share advance. Some of the engineering and shipbuilding firms in the West of Scotland have recently been able to secure large orders on Indian and Russian account, which will keep business brisk well into next year. Earle's Shipbuilding are 15s. 6d.; Milner's Safe, 7½ to 8½; Native Guano, 40s.; Palmer's Shipbuilding, B. 3½; and United Linners, 25s. In wagon companies' shares prices are generally firmer. Ashbury Railway Carriage are at 55s. 6d.; Birmingham, 12½; Bristol, 55s. 6d.; Bristol and South Wales, 6½; Gloucester, 6; Metropolitan, 40s. prem.; Midland, 8; Railway Carriage, 80s.; Scottish, 8½ to 9; ditto (new), 50s. to 60s.; Swansons, 30s.; United States Rolling Stock, 14½; and in chemical companies' shares prices are—Langdale's, 82s. 6d. to 87s. 6d.; Lawes, 6½ to 7½; ditto 7 per cent. (preference), 9½ to 10; Newcastle, 42s. 6d.; Odams, 17½; and Western Counties, 11½.

BROXBURN OIL COMPANY.—150 of the shareholders of the company paid a visit to the works lately. They proceeded first to one of the four mines whence the raw material is procured. Here the shale was found outcropping and following the seam; the shaft is carried down at an angle of about 45° instead of vertically as is more usually the case. There is thus a considerable saving in the matter of mechanical power. No one ventured underground. Passing along the line traversed by the shale hatches, the breakers were next shown in which the shale is crushed. Then the retorts were examined in which the crude oil is extracted. Next they saw the process of distilling the ammonia evolved in the course of manufacture, and then they proceeded to a farm which forms part of the undertaking. The refinery, which is situated close to the village of Broxburn, on the banks of the Union Canal, was afterwards visited, and the processes of distillation were seen

Mr. Smyth points out that unnecessary cost was incurred in getting the stone, and that it was injudiciously treated when obtained. In conclusion, Mr. Smyth is satisfied that their machinery and appliances are such as to make it impossible to save the gold even if the best scientific and technical knowledge was brought to bear on the operations. The one fact that oil and grease were allowed to fall on the copper-plates and to get into the crevices is sufficient to show that the state of affairs was when the best results were obtained. The main reef within the area held by the Alpha Company is nearly 2000 ft. in length; it is from 4 ft. to 14 ft. (at least) in thickness; in one part the quartz is of extraordinary richness, and other parts have yielded well. Native miners have picked what must have been auriferous quartz all along the outcrop, and at the Skull their operations are extensive. The position of the reef and the formation of the ground both offer facilities for economical mining. It appears that the yields of gold have been for 77½ tons of quartz, 2 dwts. 9 gr. and for 322 56 tons, 10 cwt. 12 gr., and the gold was got under the most disadvantageous circumstances. The prices paid by the Alpha Company and tributers for labour, for timber, and for firewood are no criteria to guide him in estimating the costs of mining at Devalah. Under skilful management arrangements would be made for procuring all necessary supplies at the minimum cost, but in desultory operations the maximum cost as a matter of course has to be paid.

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last between the two companies with a view to their mutual benefit. In the foreign market Egyptians have attracted most attention. Argentines also continue to rise. The English funds are very firm, Consols nearly ½ per cent. better for the week. This rise was caused chiefly by the scarcity of stock at the settlement. Metals, especially tin and copper, have advanced, and shares in some mines have been firmer. Crebors, from heavy "bearing" transactions, declined to 4, but are moving up again.—W. H. H. WATSON: 1, St. Michael's Alley, Cornhill, E.C., Friday Morning, Oct. 3.

GREAT LAXEY MINING COMPANY.

The annual general meeting of shareholders will be held at Douglas, on Oct. 8, and the directors in forwarding the balance-sheet and agents' reports with the notices state that they think that, considering the difficulties which have attended the working of the past half-year, the statement will give satisfaction to the shareholders.

The accounts, embracing the period from Feb. 7 to Aug. 2, show—labour cost paid, 73047; merchants' bills, freight and insurance, offices and expenses of management, royalty (5517. 18s. 7d.), and sundries, 36357. 2s. 10d.; April dividend paid, 37507; together 14,6897. 2s. 10d. On the other side of the account there are—balance from last account, 35057. 6s. 1d.; lead and blende sold, or ready for sale, 74507; sundries, 11277. 0s. 8d.; leaving debit balance, 26067. 16s. 1d. There is 33637. 0s. 7d. now standing to credit of reserve fund, of which 30007. is invested in Consols. The total excess of liabilities over assets is 46237. 0s. 4d., against which there is ore in hand, but not included in the above account, 28387.

The report of Capt. F. Reddcliffe and W. H. Rowe, details the various points of operation, and in conclusion says that the driving in the south ground "over the 110 has been continued, but the lode not being so good going south, we think of returning to the rising again at the end of the present month. Satisfactory progress has been made in the driving of this level northward, and we shall shortly be prepared to force it on with great speed by a rock drill. Both above and below ground the machinery throughout the mine is in a good condition. It is to be hoped we have now done with the adverse circumstances which have operated against us in the past six months, and confidently expect satisfactory results from the current half-year's working."

MARKET ECHOES AND MINING MATTERS.

Although we endeavoured to show our readers last week that a reaction might at any time set in in the price of Crebors shares, we were scarcely prepared for such a very sudden realisation of our fears. The usual symptoms of a fall were apparent soon after the market opened on Monday, but the panic was to a certain degree allayed before the close by the receipt of a reassuring telegram (rather difficult to explain under the circumstances) from the mine. On Tuesday, however, the "bears" were in full possession of the field, and the fall was headlong. From over 107. per share the price rushed down to 33. 4. Thus in two days the market value of the mine fell from 60,0007. to 24,0007. On Thursday the price rose again to 62, but soon after fell away to 53, and closes 5 to 5½. The lode in the 108 is reported to be disordered by a "slide." In the 120 it has fallen off in value. This looks very much as though the discoveries were, after all, a "bunch," and nothing more. The result has fully borne out the soundness of our counsel last week to holders to take their profits when such a very high price as 107. could be realised, and we are glad to think that what we then wrote has also saved more than one investor from commencing an investment in the mine at that extreme figure. Whatever may be the future of Crebors, it is now fully evident that the price of 107. was purely an artificial one, judging the mine by its actual present condition.

There has been a very fair market for lead shares all the week, but a remarkable "spurt" occurred in East Van, which suddenly rose to 4½. 5. Telegrams dispatched to mine and neighbourhood were answered "No discovery whatever," and so the price has quickly receded again, but closes quite 20s. above that of last week. Tankerville have been in strong demand at 3½ to 4, and there has been an enquiry also for Pandora, a mine for a long time almost lost sight of by investors. There has been also some enquiry for the shares of another mine in the Llanrwst district—North D'Esreshy. It possesses excellent prospects, and can be very cheaply worked. From our own knowledge of the property we think it deserves energetic development, when some good discoveries would doubtless soon be made. A sudden demand has set in for Combmartin shares, but we cannot trace much market business. The shares are mostly held privately, and until lately were quoted nominally at 2s. or 3s. each.

A large—very large—business has been done in Parys Corporation. The price has touched 20s., and closes 15s., 17s. There is no particular change at the mine, but the shares being comparatively low are considered "likely" ones for a substantial rise; hence the buying. In Marke Valley and East Caradon there has been some amount of business doing, whilst Devon Consols keep firm, at the late advance.

We hear the copper standard has advanced 3s. 8s. At the Hafod Mines of the Mineral Corporation excellent progress continues to be made. The fine new iron water-wheel is complete, and has been placed in connection with the reservoirs. The dressing-floors are in full working order, and a start will soon be made, so as to bring ore into the market at an early date. Tin shares have been in better demand towards the close, owing to the higher price of tin in London. Peevors have been done at 13½, so at last the South Condurrow quotation has been passed. It has been a hard race between these two mines for some time. The improvement noted last week holds on at East Lovell, and the shares are still wanted at 3½. At Carn Brea a profit of 5904. has been made, and 2477. at Tincroft. JAMES H. COOKE.

INVESTMENT NOTES.

The settlement of the heaviest account known on the mining market for a long time has interfered in a great measure with fresh business. The record of the past week cannot be said to be favourable, although it is not probable that the general body of investors will suffer directly from the collapse in the price of Crebors shares. More prudence has been exercised by those whose business and duty it is to guide the public in the choice of their investments, than by recommending a purchase of shares after such an enormous and rapid rise. Further remarks on Crebors will be found below. The Banca sale of tin has just taken place, the price realised being equal to 72½. 10s. per ton in London. As anticipated in these Notes a few weeks since, the price at once commenced to rise, and actually advanced 1½. on the day that the result of the sale was announced, while the standard has since been advanced 2½. per ton. A steady and important improvement may be looked for, which will altogether brighten the fortunes of Cornish mining. Although our own harvest is bad, there are reasons to hope that it will not militate against the general revival of British commerce, but that the recovery in iron and tin is really the harbinger of better times. Lead is also firmer, and will, no doubt, improve with other metals.

To return to Crebors, the decline in shares may be said to have commenced on Saturday last, but assumed more serious proportions on Monday. The falling off in the value of the lode must have been known to some on the former day, and yet in answer to an enquiry to the manager on Monday Capt. Andrews telegraphed that there was no falling off, thus inducing those who had entire confidence in him to buy at the reduced price. It will be wrong to accuse Capt. Andrews of wilful fraud, but such a bold assertion should not be made on the report brought up from underground by working miners or even under agents, but should be confirmed by his own personal inspection. If he did not take this precaution he is guilty of the grossest neglect of duty, warranting dismissal from the service of the company. Every mine manager cannot be too cautious in his reports, especially when the share market is fluctuating so considerably. Of the future of the mine, and the price of shares, it is difficult to predict; money may be made by acting promptly on the rise and fall in prices. Parys Corporation shares have been very largely bought. An enormous deposit of copper may be met with, and the shares will be intrinsically of great value. As a legitimate speculation, they are now capital shares to buy.

There has been an unaccountable rise in East Van shares. Business was reported at 51, but the price has receded to 13½. 2. There have been again many enquiries from bona fide investors for North D'Esreshy Mountain shares, and from a perusal of the straightforward reports of first-rate practical men, no one who has money to spare should hesitate in buying a few shares in a mine of such promise, with a capital so small (yet ample) as 10,0007., while they may be obtained at par (20s. fully paid).

Capt. Bennetts, manager of the mines owned by the Mineral Corporation of Great Britain, affirms that "the mine, with a small outlay of capital, may be brought into a dividend state in a very short time." Other reports speak just as confidently of the future.

In the Stock Exchange a very large business has been transacted in Caledonian, Brighton, A. North British, Egyptians, Erie, &c. ALFRED E. COOKE.

78, Old Broad-street, London, Oct. 3.

SENTIN.—This company has sold another parcel of 70 tons of silver-lead ore, which was delivered in Liverpool last week; and also 300 tons of blende, which is in course of delivery to Swansea. The report appears in another column.

CORNISH PUMPING-ENGINES.—This number of pumping-engines reported for August is 16. They have consumed 1633 tons of coal, and lifted 12.2 million tons of water 10 fms. high. The average duty of the whole is, therefore, 50,600,000 lbs. lifted 1 ft. high by the consumption of 112 lbs. of coal. The following engines have exceeded the average duty:—

	Millions	50-8
Mellancar—76 in.	55.8	
Mellancar—Gunby's 80 in.	55.8	
West Basset—Thomas's 60 in.	57.9	
West Wheal Franks—58 in.	54.3	
West Tolgus—Richard's 70 in.	56.9	
West Wheal Seton—Harvey's 85 in.	60.5	
West Wheal Seton—Rule's 70 in.	68.0	

Llanbadarnfawr Lead Mine Company

(LIMITED).

Capital £20,000, in 5000 Shares of £4 each.

3875 of which will be denominated A Shares, and will be liable to calls, and 1125 of which will be denominated B Shares, and be issued as fully paid-up to vendors of the property. £1 payable on application and £1 upon allotment. In case of no allotment, all moneys will be returned in full. No calls to be made within six months after allotment.

AUDITOR (AND ACTING SECRETARY, PRO TEM.)—MR. E. L. ERNEST.

OFFICES,—4, QUEEN STREET PLACE, CANNON STREET, LONDON, E.C.

ABRIDGED PROSPECTUS.

This company is formed for the purpose of purchasing from the present holders the Llanbadarnfawr Mining Sett, and by proper application of capital developing the evident great resources of the property, which it is confidently believed by the best scientific authorities must yield great returns to the investors. The property is situated in Cardiganshire, on the estate of Sir Pryse Pryse, some eight miles from the shipping port of Aberystwith, and in the heart of the richest cluster of lead mines in the United Kingdom.

It has an area of one mile in length upon the run of the lodes, with about half a mile of breadth, and the turnpike road to the port forms one of the boundaries of the sett—a very great advantage in itself, the cost of carriage being much reduced thereby.

There is every reason to believe that this mine will prove one of the great prizes of this noted country. The fact of its position—viz., in the immediate neighbourhood of the best and richest mines of the past and present—would alone be sufficient to warrant its energetic working, but in addition the incoming shareholders will reap the advantage of the property having to a great extent been proved for them, and proved sufficiently to amply justify the purchase, and the application of the necessary capital to continue the work already commenced. During the development there will be good returns, and every day's work will show the mine growing richer in productiveness, and on the road to rival the best of its valuable neighbours.

An engine-shaft has been sunk 30 fms. from the surface, and levels driven at 20 and 30 fms. east and west. The 30 fms. level has been driven into a splendid lode, and it is only necessary to examine the ore hauled from this level and now lying at surface to be convinced that a great and profitable mine is in store here. In the adit level a valuable discovery of fine ore has been made, spotted with copper, just at the point of junction of two lodes, and the lode in the level west of the south cross-cut has been proved of excellent value, even at this early stage. The mine has the great advantage of ample water power for raising, crushing, and dressing the ore, and thus a saving of a large outlay, &c., for steam-engines.

is effected; water courses have been already made, bringing the water into the sett. Water power is one of the rare features in mining, and one that cannot be too highly appreciated.

There are the following necessary adjuncts for working on the mine, which with a moderate outlay can be made sound and good—viz., a 30 ft. diameter water-wheel sunk in a 40 ft. pit, built in a thoroughly substantial manner, with bobs, travellers, and rods from wheel to shaft, pulleys, stands, &c., 60 fms. pumps, drawing machine fixed, &c.; there are also smiths' and carpenters' shops, store house, offices, &c.

From the position—some half mile south of the celebrated Goginan, and as before stated surrounded by all the richest mines of the district—and character generally of this property, it is not too much to claim for it that it is undoubtedly the best and most promising mine that has been offered to the public for many years. The proposed capital and purchase money bear but trifling comparison to what is evident the property is capable of becoming under good management and with sufficient working capital, and it, therefore, offers an excellent opportunity for investing money with confidence.

The mine as it stands with plant, &c., takes note for two years, with liberty at any time to take up lease for twenty-one years, subject to minimum rent of £25, merging into dues of one-sixteenth, the company has agreed to purchase for £3500 in money, and £4500 in paid-up shares. This moderate and reasonable price will leave ample capital for the development of the mine, and the directors will see that the money of the shareholders is applied justly and judiciously to the working of the property.

It is confidently anticipated that no further call will be required, but that, on the contrary, the amount proposed to be called up will be more than sufficient to develop the property, and bring the shares to a large premium.

Prospectuses, plans, contracts, Memorandum of Association, &c., can be had, and contracts seen, at the offices of the company.

WATSON BROTHERS' MINING CIRCULAR.

WATSON BROTHERS,
MINEOWNERS, STOCK AND SHARE DEALERS, &c.
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

Ten years ago the weekly information which had previously been published for a great number of years in WATSON BROTHERS' Mining Circular was transferred to the columns of the *Mining Journal*, with the following announcement; which is now reproduced in consequence of the numerous letters and enquiries handed to them of late in reply to one which appeared in the *Journal* on the Clementina Mine.

In our remarks upon Wheal Crebors last week we stated that, although we fully expected the merits of the mine would eventually bring shares to 107. each, yet that price had been realised sooner than we expected, and that the grand point was now the 48. We also added that the 108 and 120 ends would be watched week after week, and every change in their value noted, so that shares might be influenced up or down in the market.

We were not prepared, however, for the revolution that has taken place this week, owing to the grand coup d'état of the "bears." Last Saturday we bought shares ourselves at 97. 5s., on Monday we gave 87. 15s., and then all at once a report was raised in the market that the ore had cut out in the mine, and a combination seems to have been formed to "bang the market." The secretary at once telegraphed to the mine, and in the afternoon received the following reply from Capt. Andrews, dated Tavistock, 4:12 P.M.:—"Forenoon coremen now up from underground, they tell me there is no change in the 108." Upon this, we understand, large purchases were made at 87. per share. On Tuesday a telegram was received that the 108 had fallen off, and the report received next morning valued it at 507. per fathom, owing to "an oblique branch crossing the end; the 120, west of winze, was 20 feet wide, but had slightly fallen off in value, and is now worth 807. per fathom."

Yet upon this the "bears" pressed shares for sale by hundreds on a frightened market, and got down the quotation to 3½.—a fall of 36,0007. in a week! The next move may probably be that shares will be bought up when at the lowest, and then there will be another rise.

A week or two ago we were strongly advised by one upon whom we could rely not to sell our shares, as they would go to 207. upon the merits of the mine, and we have not sold one; and even should the 108 and 120 ends fall off still more it would not alarm us, knowing it to be the very nature of the lode to have sudden changes from rich to poor, and from poor to rich.

On Thursday the agent telegraphed as follows:—"Tavistock, Oct. 2, 11:50. Just up from underground; new lode, 108 east of cross-cut, still worth 507. per fathom; lode west of winze at 120 east worth fully 807. per fathom."

The assay of the ore at Crebors is as follows:—162 tons, 5½; 39 tons, 12½ per cent. Taking this at 10s. per unit it will bring about 7007., and leave a profit of about 2507.

HERODSFOT.—The ore here realised 5377. 15s. The best parcel brought 147. 5s. 6d. per ton.

The agent at D'Esreshy Mountain writes—"I have just come up from No. 5. We had a hole in the bottom to-day which broke out some nice lead; and from the careful and repeated examinations I have made of it I consider it to be a rich lode. There are no large bunches of solid lead, but good ribs and patches of lead for 2 to 3 fms. wide, and I believe we may be able to get a good deal of lead from this point."

We stated in our last that Capt. Holman, of South Caradon, had inspected Wheal Crebors, and had confirmed the agent's reports. Since then the report of Capt. Holman has been handed to us, and as some people seem to think the new discovery is not a new lode, we give the following extract from his report, dated Sept. 23:—"The new south lode at this level (120) is 20 ft. wide, and will yield fully 30 tons of ore per fathom; worth 1007. At the 108 fms. level in this lode it is 8 ft. wide, worth 16 tons of ore per fathom, which I also consider may be valued at 1007. These are two splendid courses of ore, and as far as I can see should conclude it is another lode standing to the south of the old one."—Signed JOHN HOLMAN.

On Monday we received a post-card, of which the following is a verbatim copy. Probably many other shareholders received the same, or some other like shot of the "bears," who are now in full swing, "Advise your customers to get rid of Crebors instantly. Remember East Van. Crebors have never paid dividends, nor never will, notwithstanding the 'bulling' and 'bearing' of the shares. I made handsomely by buying at 2½; I hope your clients made also. Buy into something steady." The card, addressed to Watson Bros., bears the Dublin postmark of Sept. 27, but evidently hails from London.

In regard to East Van, as we never held or recommended shares

in that mine, the advice so far is superfluous; but we thank the writer of the card, whoever he may be, for his good wishes and very disinterested advice in regard to Crebors.

We have no idea when we received this card, a copy of which was probably sent to many others besides ourselves, that an organised system of "bearing" had been adopted, and that it would be so successful. Many people when they were told that the ore had cut out (which was false) got frightened, and rushed into the arms of the "bears."

"A" writes us that when he heard "the ore had cut out" at Wheal Crebors he got so alarmed that he rushed into the market—that is, into the arms of the "bears"—and sold at 3½; and we imagine from all we hear many others did the same, and to such alarmists nothing that we can write or say will avail much. But what is the meaning of "ore cutting out?" At Crebors there is a course of ore 40 fms. long and 12 fms. deep, and estimated to produce at least 50,0007. worth of ore. The ends (the 108 and 120) are being driven beyond this, into fresh ground, and, of course, every fathom so driven adds materially to the value of the ore ground. But we never expected these exploring ends to continue worth 1007. per fathom; such a thing was never heard of in any mine; it is the nature of all lodes to be rich and poor—that is, to open out many feet wide and rich then contract for a time, become poorer, and then open out again; and this has always been particularly the case with Crebors, and will be so again; but were these ends to fall off to 207. per fathom tomorrow it would in no way alarm us, or induce us to sacrifice a single share.

That the "ore had cut out" even in these ends, however, was utterly untrue, and it is to be hoped the author and circulator of the report that sent down shares 77. each, and has inflicted such injury upon individuals, may yet be found out.

SATURDAY, SEPT. 27.—With the exception of a demand for Parys Copper shares, the market is rather quiet, the dealers being engaged with the settlement. Wheal Crebors not quite so firm. Carn Brea, 31 to 33; Dolcoath, 31 to 33; South Frances, 8½ to 9½; South Condurrow, 11½ to 12½; Peevor, 11½ to 12; Van, 15½ to 16; Great Laxe, 15½ to 16½; Leadhills, 2½ to 3½; Tankerville, 3½ to 4½; East Van, 3½ to 4; Herodsfot, 2½ to 3½; Mellancar, 3½ to 4½; Crebors, 9½ to 9¾; Parys, 17½ to 18; Richmond, 8½ to 9½; Don Pedro, 12½ to 13½. MONDAY, SEPT. 29.—Market for tin shares quiet. Parys Copper, East Van, and Devon Great Consols in demand. Crebors weaker, East Van, 2½ to 3½; Devon Consols, 3 to 3½; Parys Copper, 16s. to 18s.; Crebors, 7¼ to 7¾; Roman Gravel, 8½ to 8¾; Tankerville, 3½ to 3¾; West Tolgus, 24 to 26; Basset, 2 to 2½; Grenville, 4½ to 5; Peevor, 11½ to 12½; East Laxe, 15½ to 16; Tincroft, 10½ to 11½. TUESDAY, SEPT. 30.—Settling day; very little doing. Crebors dropped to 61., sellers. East Van advanced to 3½, buyers. Carn Brea, 31 to 33; Dolcoath, 31 to 33; South Frances, 8½ to 9½; Tincroft, 10½ to 11½; South Condurrow, 11½ to 12½; West Basset, 5½ to 6½; West Frances, 5½ to 6; Crebors, 4½ to 5½; Peevor, 12½ to 13; Great Laxe, 15½ to 16½; Van, 15½ to 16½; Tankerville, 3½ to 4; Parys, 15s. to 17s.; Herodsfot, 2½ to 3½; Leadhills, 2½ to 3½; Grenville, 5 to 5½; Uny, 20s. to 30s.; Richmond, 8 to 8½; Cape Copper, 2½ to 2¾; New Quebrada, 2½ to 2¾; Don Pedro, 12s. to 14s. WEDNESDAY, OCT. 1.—Market for tin shares firmer. East Van and Wheal Crebors flatter. Carn Brea, 32 to 34; Dolcoath, 32 to 34; South Condurrow, 12 to 12½; Tincroft, 10½ to 11½; East Lovell, 2½ to 3½; Peevor, 12 to 12½; West Basset, 5½ to 6½; Crebors, 3½ to 4; East Van, 2½ to 3; Great Laxe, 15½ to 16½; Van, 15½ to 16; West Chiverton, 2½ to 3½; West Tolgus, 24 to 26; Parys, 15s. to 17s.; Leadhills, 2½ to 3½; Tankerville, 3½ to 4; Don Pedro, 12s. to 14s. THURSDAY, OCT. 2.—An active demand for tin shares at an advance. Wheal Crebors firmer at 4½, buyers. Carn Brea, 34 to 36; Dolcoath, 33 to 35; East Lovell, 3 to 3½; East Pool, 15 to 16; South Condurrow, 12 to 13; South Frances, 8½ to 9½; Tincroft, 10½ to 11½; West Basset, 5½ to 6½; West Frances, 5½ to 6; Crebors, 4½ to 5½; Peevor, 12½ to 13; Great Laxe, 15½ to 16½; Van, 15½ to 16½; Tankerville, 3½ to 4; Parys, 15s. to 17s.; Herodsfot, 2½ to 3½; Leadhills, 2½ to 3½; Grenville, 5 to 5½; Uny, 20s. to 30s.; Richmond, 8 to 8½; Cape Copper, 2½ to 2¾; New Quebrada, 2½ to 2¾; Don Pedro, 12s. to 14s. FRIDAY, OCT. 3.—Market very active for both tin, copper, and lead shares, and in most cases at an advance. Quotations are as follow:—Carn Brea, 37 to 39; Combmartin, 12s. 6d. to 17s. 6d.; Devon Great Consols, 3½ to 3¾; Dolcoath, 35 to 37½; East Caradon, 17s. 6d. to 22s. 6d.; East Lovell, 3½ to 3¾; East Van, 2 to 2½; Glenroy Lead, 10s. to 12s. 6d.; Great Laxe, 16 to 17; Herodsfot, 2½ to 3½; Leadhills, 2½ to 3½; Mellancar, 3½ to 4½; Marke Valley, 15s. to 17s. 6d.; Morfa Du, 15s. to 17s. 6d.; Parys Copper, 15s. to 17s. 6d.; Roman Gravel, 8½ to 9½; South Condurrow, 12 to 13; South Crofty, 21 to 23; South Frances, 8½ to 9½; Tankerville, 3½ to 4; Tincroft, 10½ to 11½; Van, 16 to 16½; West Basset, 6 to 6½; West Chiverton, 2½ to 3; West Frances, 6 to 6½; West Seton, 30 to 35; West Tolgus, 28 to 29; Agar, 3 to 3½; Basset, 2 to 2½; Crebors, 5 to 6; Grenville, 4½ to 5½; Kitty, 12s. 6d. to 15s.; Peevor, 13 to 13½; Uny, 25s. to 30s.; Cape Copper, 28 to 30; Don Pedro, 12s. to 14s.; Frontino, 2½ to 2¾; Panulicillo, 1½ to 2½; Richmond, 8½ to 8¾; Santa Barbara, 32s. 6d. to 37s. 6d.

MR. WILLIAM H. H. WATSON, DEALER IN RAILWAY STOCKS AND MINING SHARES at net market prices, is a BUYER OF WHEAL CREBORS, PANDORA, COMBARTIN, and PARYS MOUNTAIN.

Address: W. H. H. WATSON, 1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON, E.C.

GENERAL MARKETS.—The stock markets have been very active all the week, and prices have a general rise all round. English railways are particularly buoyant, the improvement in the iron trade, and the prospects of better trade generally, bringing in buyers, both for investment and speculative purchases. Brighton, A. Caledonian, and Berwick are from 4 to 5 per cent. higher; in fact, railways all round show a considerable rise. American railways of all descriptions are very good, and have been in great demand all the week, the rise in Erie shares and bonds being very considerable. Grand Trunk and Great Western of Canada shares are higher, in anticipation of something being really arranged at

Registration of New Companies.

The following joint-stock companies have been duly registered:—

SOUTH WHEAL CREBOR (Limited).—Capital 40,000*l.*, in shares of 1*l.*. To acquire by purchase, lease, or agreement lands and mines in Devonshire or elsewhere, and any other mining and mineral properties, together with the plant, machinery, implements, premises, buildings, &c. To work the mineral grounds, with power to erect engines, buildings, and machinery as may be required for the purpose of crushing, washing, smelting, refining, and dressing the ores and minerals for commercial gain. The subscribers (who take one share each) are—W. Reynolds, Kingston-on-Thames, C.E.; J. B. Rogers, St. Clement's House, Lombard-street, engineer; J. A. Solomon, Millwall, newspaper proprietor; G. H. Scott, Bow, clerk; A. F. Green, 41, Lancaster-road, gentleman; C. Hart, 119, Lambeth-road, clerk; S. Granfield, 1, Upper Charles-street, clerk. There are 10 clauses in the Articles of Association; these only refer to the general working of the company, but no details are given as regards directorate, &c.

THE LONGTON HALL HOTEL COMPANY (Limited).—Capital 10,000*l.*, in shares of 5*l.*. To establish and carry on the business of a hotel keeper and proprietor. The subscribers (who take one share each) are—E. Bitterford, Sydenham; W. H. Hobbs, 37, Threadneedle-street; F. G. Pym, Beckenham; M. Clarke, Sydenham; W. G. Colley, 26, Budge-row; G. E. Boyes, Sydenham; E. J. Booth, Beckenham.

LONDON PROVIDENT INSURANCE COMPANY (Limited).—Capital 10,000*l.*, in shares of 5*l.*. To carry on the business of an insurance and guarantee company in all its branches. The subscribers (who take one share each) are—H. Tregent, 207, Vauxhall Bridge-road; C. Tyler, 28, Commercial-road; T. M. Oliver, North Finchley; W. F. Rees, Greenwich; Sir F. C. Knowles, Ryde; E. Fry, 37, Walbrook; J. Long, Barnet.

THE BOULDNOR PIER AND LAND COMPANY (Limited).—Capital 55,000*l.*, in shares of 10*l.*. To purchase or otherwise acquire the Bouldnor estate and any other properties in the Isle of Wight or elsewhere, and to carry on the manufacture and sale of bricks, tiles, &c. The subscribers (who take 10 shares each) are—G. E. Morton, 12, Buckingham-street; R. L. Gourlay, New Cross; G. Woods, 19, Harpur-street; H. P. Omeara, 47, Tollymore Park; H. S. Wilde, Bushey Heath; C. G. Percival, 23, Green's-terrace; C. B. Lamey, 2, Dowgate Hill.

THE INTERNATIONAL TRADING COMPANY (Limited).—Capital 1,000,000*l.*, in shares of 20*l.*. To purchase any kind of articles and goods for shipment abroad and trading purposes, including grain, tallow, timber, wines, &c. The subscribers (who take one share each) are—T. Sissons, East Dulwich; J. Andrew, Tollymore Park; A. Page, Hatcham Park; J. F. Copeland, Penge; E. M. Pigram, 30, Upper Tollymore Park; A. Cervoni, 77, Cornwall-road; M. McEvoy, 20, Medina-road.

SYDENHAM STORES (Limited).—Capital 10,000*l.*, in shares of 5*l.* and 1*l.*. To supply members and others with all kinds of stores, and to carry on the business of a co-operative company. The subscribers (who take 20 shares each) are—E. Howard, Silverdale; E. J. Cain, Sydenham; T. D. Shephard, 30, Bush-lane, Cannon-street; A. Solomon, 82, Southampton-row; A. E. Lillierap, Kentish Town; J. J. Garrard, 356, Brighton-road; L. C. Alexander, 121, Pall-mall.

HOOLEY BRIDGE PROPERTY COMPANY (Limited).—Capital 22,000*l.*, in shares of 500*l.*. To carry on the business usually carried on by a land company in all its branches; buying, selling, and otherwise disposing of land; the erection of houses, buildings, &c. The subscribers (who take one share each) are—G. Benson, Manchester; E. Crabtree, Heywood; J. J. Smith, Manchester; T. Sherwood, Manchester; T. Pople, Heywood; R. W. B. Sanderson, Manchester; J. Sturdy, Ardwick; N. Haworth, Manchester; T. Turner, Heywood; W. T. Windsor, Manchester.

Mining Correspondence.

BRITISH MINES.

ABERLYN.—J. Roberts, Oct. 2: There is no change in the rise in No. 3 adit. We have about 5 fms. more to communicate this with the winze at No. 2, which is now down nearly 5 fms. below that level, and has a leader of blende on one side about 3 in. wide. The No. 2 cross-cut is hard, and rather spare for driving. The stope throughout are looking much the same as last week. The valley cross-cut is intersected by a great number of joints, in some of which are good faces of blende.

BEDFORD UNITED.—R. Goldworthy, Sept. 30: We are driving by the side of the lode in the 133 adit; when last taken down it was worth 9*l.* per fathom. The stope in this level (two in number) are worth, on an average, 10*l.* per fathom. In the 127 east driving is being continued by the side of the lode as to make more progress, it being a most important point to reach the western cross-course, about which the Bedford level became productive, and continued so far a great distance up to and beyond the eastern cross-course. The stope in this level is worth 7*l.* per fathom. There is every reason for believing that the ends now driving east will lay open valuable ground, and the present improvement in the price of the ore clearly shows that a better run of ground has been reached. We sampled on Friday last (computed) 55 tons. I expect the parcel will fetch quite as much as last; any improvement in the standard we shall have the benefit of.

BLUE HILLS.—S. Bennetts, P. Vian, Sept. 27: During the past week the rods pitwork, &c., have been fixed in the Blue Burrow shaft. The lode in the winze below No. 30, west of the shaft, is at present small, and worth about 5*l.* per fathom. The stope in the bottom of this level are not so productive just now as they have been, and worth 4*l.* to 5*l.* per fathom. In the 30 east end the lode is 2 to 3 feet wide, and producing low quality tinstuff.

BODIDRIS.—H. Hotchkiss, Oct. 1: Maes-y-pwll Lode: The 60 Level East: The lode in this is very strong, and has a most promising appearance, being over 4 feet wide, disseminated throughout with blende, spar, &c.; we are making fair progress in this drive. In the 30, west of new shaft, we have a leader 6 inches wide of spar and lead ore mixed in very promising ground. We are now into more settled ground in the 17 level west, and are having small lumps of lead ore throughout this end, and I expect it to improve as we drive in this direction. In the same level east we have a leader of grey ground 6 inches wide for 4 feet up the end, well mixed with good lumps of lead—a promising lode, and we appear to be on the top of a good run of ore; after we have driven a little further here I intend to sink a winze on this to prove it deeper. The 45 end, driving for the Craiglog lode, has become much stronger, consequently our progress is not so good as it was last month; the ground is of a good mineral-bearing character. We are busy taking out the stonework from the top of the meadow shaft, in order to replace it with brickwork, so as to stop all surface water; this I shall endeavour to have done before the wet weather sets in, and so be in readiness to receive the engine. The dressing is going on regularly.

BWLCH UNITED.—N. Bray, Sept. 27: I was at the mine to-day, and I am pleased to report that matters are progressing steadily as usual. In the 100 the men are getting on very well with opening lode, and we are now preparing timber for driving and sinking the shaft for the machine kibble to draw stuff from the bottom. The 70 is being prosecuted steadily, and the lode quite as encouraging as when I reported last.

CAMBRIAN.—Thomas Glanville, Sept. 23: Esgrai Frith: Eastern Shaft: In the shaft, sinking below the 86 yard level, the lode will produce 3 tons of copper ore per yard. The 86 yard level, east of shaft, will yield 2 tons of copper ore per yard. The stope in the back of the 86 yard level will yield 4 tons of copper ore per yard. The stope in the back of the 70 yard level, east of shaft, will produce 2 tons of copper ore per yard. Other points remain as usual. On Monday week we shall commence another lot of copper to Swansea for the November sale.

CLEMENTINA.—William Sandoe, Oct. 1: Setting Report: The bottom end to drive north, by six men, at 7*l.* per fathom; this end yields good saving work for lead, but we have about 5 or 6 fathoms yet to drive to come in under the large sink in the bottom of the level above, which it appears was worked down at that time as far as the water would allow them to go. The bottom end to drive south, by two men, at 9*l.* per fathom; the ground here at present is very stiff, but here, as in the north end, we have some fathoms to drive to get out under the runs of ore gone down from the level above, and in both these ends we expect to get into good ore ground by-and-by. We have also put on four men to stope the east and west lode in the bottom of the level; there is a nice rib of solid lead to start on. In the roadside shaft we are glad to say the water has been all forked out down to the debris, timber, &c., in the bottom of the shaft, and this we are clearing with the tackle as fast as we can, and hope to get it all clear in a few days. We can now see the top part of the end going east from the shaft, and in which there is a good branch of lead. The small footway and air-shaft about 20 yards west of the pumping shaft has also been cleared up, and good ladders fixed in it to the bottom. Everything in connection with the mine is being pushed forward as fast as possible.

COMBARTIN.—J. Comer, Oct. 2: In the 12, driving north-west of the winze, we have just touched the hanging part of the lode at the north-western side of Harris's cross-course, and so far as cut into the lode shows quartz, mundle, blende, and lead. We hope to see more of the lode at this point by Saturday, which is our setting day, and we will send you a full report for next week. The other parts of operation are without change to notice since last week's report.

CROOK BURN.—W. Vipond, Sept. 26: The men have got the crib just down, and about 6 ft. of the shaft walled. They will continue on with the walling till completed. The sides and ends of lodging shop are up square to the caves. I think they will get the floors laid and the roof on next week.

DENBIGHSHIRE CONSOLIDATED.—R. Prince, A. Francis, Oct. 2: The new communication between the 66 and 112 is complete; this was necessitated in consequence of the damage done by the floods several weeks back. This will

prove a permanent job. In the new cross-cut north in the bottom level near the engine-shaft, progress is very fair. The ground is of a favourable nature, and we have no doubt that we shall succeed here in striking a lode of rich character. This operation is well reported on by those who are thoroughly acquainted with the numerous offshoots or veins that are running through the northern portion of our property. Again, the large quantities of lead that have been raised from parallel lodes still further north induce every practical man to look for the fulfilment of the expectations raised of our ground, which, as it were, is in a valley between Maes-y-safn and Cathole mines. We have driven upon the 112 east main lode 3½ yards, and have now intersected the particular measures of ground which have proved productive in the adjacent mines. We have not yet touched the lead ground passed through, and which is in the roof of the level. In the 66 west we completed the cross-cut some days ago, and since this have extracted a splendid pile of lump ore and a quantity of good saving stuff for the washing-floor. We expect great results from here. The machinery is in good order, and the water is less than at any time during the summer.

D'ERESBY CONSOLS.—William Sandoe, Oct. 1: In the end driving west towards Cobblers' lode we are making better progress than for the past three or four months. The joints we are frequently driving through are in favour of the drive, and as well indicating our getting nearer the lode; but from carefully re-dialling the end this week we are fully convinced that the lode is yet before us. **D'ERESBY MOUNTAIN.**—William Sandoe, Oct. 1: The No. 1 end driving south towards D'Erresby Consols, has been re-set, at 6*l.* per fathom, by two men. The lode here maintains its size (2 to 3 ft. wide), and is still rich for blende. The stope in the bottom of No. 2 continue to look very well, and are yielding some excellent lead ore. In the No. 5 adit we have cleared up all the stuff from the great sink in the bottom of that level, and are breaking some very good lead from the lode in the bottom, which we are pleased to say looks very well indeed. We have still to keep out the water from here with the hand-pumps, but are getting things together as fast as we can to pump with the engine, and which we hope to get right in a few days.

DEWENT.—J. Morphet, Sept. 30: The value of the several workings underground here is the same now as when last reported on. East of Jeffrey's shaft, on middle vein, in the back of the 95, 20 men are stopping in four sets. No. 1 is 10 ft. wide, worth 15 cwt. of ore per cubic fathom; No. 2 is 7 ft. wide, worth 13 cwt. per cubic fathom; No. 3 is 6 ft. wide, and worth 16 cwt.; and No. 4 is the flats, yielding 16 cwt. of ore per fathom. West of this shaft, on the same vein, in the back of the 93, 16 men (four sets) are working. No. 1 stope yields 14 cwt.; vein 4 ft. wide; No. 2 the same width, worth 16 cwt.; No. 3 is good, worth 35 cwt., 6 ft. wide; and No. 4 is 2 ft. wide, worth only 12 cwt., but is certain to improve. **Sun Vein:** This vein at the 70 east, where four men are driving and stopping, continues 2 ft. wide, and worth 9 cwt. of ore only per fathom. The middle vein, east of Westgarth's shaft, at and over the 93, is worked at present by 40 men, in eight sets. No. 1 vein some 6 ft. wide, worth 24 cwt. of ore; No. 2 is 7 ft. wide, worth 25 cwt. per cubic fathom; No. 3 is 8 ft. wide, worth 15 cwt. per cubic fathom; No. 4 is 3 ft. wide, worth 15 cwt., or 2¼ tons for length of working, 18 ft.; No. 5 is 3 ft. wide, worth 13 cwt.; No. 6 is 4 ft. wide, worth 14 cwt.; No. 7 is 4 ft. wide, worth 20 cwt.; and No. 8 is 5 ft. wide, worth 20 cwt., or 3 tons for length of rise, 18 ft. The 74, west of this shaft, is off to one side of the middle vein, and is without change. No interruption to pumping, drawing, nor dressing.

DEVON GREAT CONSOLS.—J. Rickards, Oct. 2: Wheel Josiah—New South Lode Shaft: In the 130 west the lode is 2 ft. wide, composed of capel, quartz, peach, and a small quantity of both mundle and copper ore. In the 115 west the lode is 2 ft. wide, composed of capel, quartz, peach, mundle, and a little good quality copper ore. **Wheel Emma—Inclined Shaft:** In Dawes' cross-cut south, in the 190 east, the ground continues without alteration. In the 137 east, east of Friend's cross-cut, the lode, 2 ft. wide being carried, is composed of capel, quartz, peach, mundle, and some good quality copper ore. **New Shaft—New South Lode:** In the 130 east the lode is 2½ ft. wide, composed of capel, quartz, peach, mundle, and some good quality copper ore. **Railway Shaft:** At the 175 the top and trip ladders are completed, and the men are now engaged in casing and dividing the shaft, and putting in skip-rod from the 160 to the 175, the whole of which we hope will be completed by the end of this week.

DUBBY SYKE.—W. Vipond, Sept. 26: They have got the partition and ladders into the shaft this week as far as walled; they are now sinking again in the whin till we get them the stones required to complete the walling, which I think we shall get to the shaft next week, when the sinking can go on without any further stop. There is no change to report in the bottom.

EAST LONGSTONE.—H. Harris, Sept. 30: The men have sunk the shaft driven back for the outlet, and are now making good progress in driving the level south towards the lode, and have already intersected some good branches of lead.

EAST ROMAN GRAVELS.—Arthur Waters, Sept. 30: The 97 cross-cut, west towards the lode, is driven 2½ fathoms; we expect to intersect the lode shortly. The lode in the 86 south is worth ¼ ton per fathom. No. 1 pitch, in back of the 75 south, is worth 2 tons per fathom. No. 2 pitch, in back of ditto, is worth 2 tons per fathom. No. 3 pitch, in back of ditto, is worth 1½ ton per fathom. Two 6 to 8 ft. wide, and 13 ft. high, are worth together 1½ ton per fathom. Two pitches in bottom of the 50—one north, the other south of shaft—are worth together 1½ ton per fathom. The pitch in the bottom of the 46 north is worth ¼ ton per fathom. The pitch in the bottom of the 20 south is worth ¼ ton per fathom. We completed the delivery of the 25 tons of lead ore sold to Messrs. Nevill, Druce, and Co. on the 25th inst. last night.

EAST VAN.—Wm. Williams, Oct. 2: We have discovered nothing of value in the cross-cut at the 25 east, and at present it is very unlikely that we shall do so. We are now preparing to drive a level upon a cross-course which produced stones of quartz, peach, and mundle, and which we hope to intersect in the 115 west, which was reported to you in my report dated Aug. 3, 1879. We drove a level upon this at the 25, but found it unproductive at that point, so that plainly we were deep for it, as we had nothing but spots of lead there. They will commence driving upon this cross-course to-morrow, and the cross-cut at the 25 east will be suspended.

EAST WHEAL LOVELL.—Richard Quentrell, Oct. 1: I am glad to say the lode in Severgon shaft continues to improve, and is now worth 12*l.* per fathom for length of shaft. The lode is strong and masterly, and from its favourable character I think it is likely to further improve as we get deeper. We intend now to remove the level from the 115 west, and to sink a new shaft, which will effect a considerable saving in the working cost.

GAWTON COPPER.—George Rowe, George Rowe, jun., Sept. 27: The part of the lode carried in the 117 east is 5 ft. wide, producing very strong sulphur and arsenical mundle, with good stones of ore—altogether of a very kindly appearance. The lode in the 105 east is carried 6 ft. wide, yielding 8 tons of arsenical mundle, mixed with ore, per fathom. The lode in the stope below the 105, east of winze, is worth 10*l.* per fathom. The lode in the stope west of said winze is worth 9*l.* per fathom. The lode in the stope in back of the 105 is worth 10*l.* per fathom. The part of the lode carried in the 105 east is 5 ft. wide, yielding 8 tons of arsenical mundle and ore per fathom. All other points are without change.

GLASGOW CARADON CONSOLS.—Wm. Taylor, Wm. J. Taylor, Sept. 29: There is no change of importance in the 102 east, on north branch, or on new south lode; both are being pushed on as fast as possible. We purpose extending the 102 cross-cut further south at once, to prove if there is more lode in that direction; all other points are being carried on vigorously. The stope and pitches throughout the mine are turning out their usual quantities of ore, of the same quality as last reported. The next sale of ore will be (computed) 180 tons, which will be sold on Oct. 2.

GLENROY.—R. Rowe, Sept. 30: The bottom levels are now driven from the shaft north 12 fms. 8 ft., south 14 fms. 1 ft. In both ends we have a large lode, but I cannot report any improvement yet of any value. We know that there is a better mineral run of ground, and that for a considerable length, south of the shaft at the 60, and in about 40 fms from the shaft, where it commences. This run of ground is dipping north in depth, and as we are now over 40 fms. below the 60 in our present drive, I expect to come up to an improvement very soon. We have a plentiful supply of water flowing from the end, and the lode, which is mostly composed of rock, with some quartz, yielded a little blende, and now and then we see a little copper, but none of value.

GORSIEDD AND MERLLYN.—W. Edwards, Oct. 2: The alterations that have been made in the shaft with reference to the pumping gear have resulted very satisfactorily, and in three days the whole of our operations were drained. The various levels are now being urged forward, and we are placing tributors to get lead ore. Distance driven and the value I will give you in my next.

GREAT HOLWAY.—Oct. 2: Garden shaft is sinking with all speed, but we have no change to announce. In No. 6 west driving the men have intersected a lode of white spar, which we look upon as a good indication for the intersection of lead ore. The tributors are not doing so well in the pitches.—Partridge Dressing-Floors: By the end of next week another parcel of 36 tons of blende will be ready for sale.—Roskell's Shaft: The men are getting on well here, and are dropping the new lift.

GREAT RETALLACK.—J. Harris, Sept. 27: The men are making fair progress in going through the attic east of boundary shaft, but the ground is very much crushed, as our men are coming in contact with large rocks dropped from the hanging part of the north part of the lode, and which contain good work for blende if we had a crusher on the mine. I hope in about another week we shall meet with some blende lode.

GREEN HURTH.—W. Vipond, Sept. 26: The end south in the 30, on No. 1 cross vein, is now yielding from 4 to 5 tons of ore per fathom, with clear plat on the east side; about 3 ft. wide, consisting of ore mixed with clay in the bottom, only about half this width higher up, and more branled. This end is now driven from the sump 29 fms. 1 ft. 6 in. The end north, in the 30, is now yielding 18 cwt. of ore per fathom; it is still hard, but has a better appearance every way than it had at the beginning of the week. These two ends have both fully doubled in value this week. The sump at the foot of incline is down close upon 7 fms. The level just above it is also down again, but has not yet yet ascertained whether it is more hazle or the limestone—I rather think it ought to be the latter. The new shaft is going on satisfactorily—it is now in soft dooky plate.

W. Vipond, Oct. 1: The end south, on No. 1 cross vein, in the 30 fm. level, continues as good as reported last week; it is yielding close on 5 tons of ore per fathom, with splendid ore going down in the bottom. We have got 10 bins of ore from this end alone on to the dressing-floors in two days. The end north continues about the same, hard, but yielding 18 cwt. of ore per fathom.

GRIFFIN (The).—C. Knesboe, Oct. 1: Our engine was started on Wednesday last, and I am pleased to say we have got the water out of the 10 fm. level to-day. The engine works admirably. It will take us up to the end of this week

to clear up the level, after which we shall resume driving north, and stopping the back of the level; at the same time we shall cut down the shaft to the bottom ½ fms., and commence to sink below the 14. I have let the adit level to two men to drive north on the east part of the Griffin lode, the month, at 5*l.* per fathom; lode worth 15 cwt. of lead per fathom, and improving. The rise above this level will be resumed on Monday next by four men at 3*l.* 10*s.* per fathom; worth 30 cwt. of lead per fathom. We have two men opening the entrance to an old level by the new dressing-floor, which was driven about 60 years ago, and is reported to have yielded good lead, which would appear to be borne out by the quality of the debris which surrounds it. There is a junction of lodes ahead of the entrance to this level, to reach which was doubtless the old men's object. At surface everything is progressing satisfactorily, and our first parcel of lead ore will be complete in a few days.

HERODSFOOT.—P. Temby, Oct. 2: There is no change in either end this week except in the 205 north, where the lode is worth about 12 cwt. of ore per fathom. No. 2 stope in back of the 205, south of cross-cut, is worth 20 cwt. of lead per fathom. No. 3 stope has also improved, and now worth 25 cwt. of lead per fathom. At surface we have erected one set of jiggers, also partly cut the new lead around the hill for the wheel, which is taken out and repaired. The masons have to-day taken the wheel-pit to build, and expect to complete it in about a fortnight. We shall commence to deliver the ore sold yesterday at Looe to-morrow.

HINGTON DOWN CONSOLS.—Thos. Richards, Oct. 1: In the deep adit level west operations are for the present suspended, and driving eastward commenced on the course of the lode, which is producing a little rich copper ore. There are some small branches of ore to the southward of the present end that will in all probability unite in a few fathoms further driving, when it is hoped an improvement will take place. In the deep adit south the ground is moderately easy, and fair progress is being made.

MELLANEA.—John Gilbert, Oct. 1: The lode in the 20, west of rise, west of Gundry's shaft, is 2 ft. wide, and yielding 1 ton of copper ore per fathom. The lode in the 30, west of Gundry's shaft, is 1½ ft. wide, and producing stones of copper ore and blende. The lode in the 40, west of shaft, is 4 ft. wide, and yielding ½ ton of ore per fathom; a very promising looking lode. The lode in the 60, west of shaft, is 3 ft. wide, and yielding 1 ton of ore per fathom. The lode in the 60, west of shaft, driving east on the south-east part, is 3 ft. wide, and yielding 2½ tons of ore per fathom. The rise in the back of this level is yielding 3 tons of ore per fathom. The lode in the 70, west of shaft, is 3 ft. wide, and yielding 2½ tons of ore per fathom. The lode in the 70, west of shaft, driving east on the south-east part of the lode, is 4 ft. wide, and yielding 3 tons of ore per fathom. The lode in the 80, west of shaft, is 5 ft. wide, and yielding 2½ tons of ore per fathom. The winze sinking in the bottom of this level is yielding fully 4 tons of ore per fathom. The lode in the 90, west of shaft, is 3 ft. wide, and yielding 2 tons of ore per fathom. The lode in the 100, west of shaft, is 6 ft. wide, and yielding 1½ ton of ore per fathom; a very strong and kindly-looking lode. The lode in the 100, east of shaft, is 4 ft. wide, and worth 1 ton of ore per fathom. There is no change to notice in the ground in Gundry's shaft, sinking below the 100, and the men are making every effort to get the shaft down to the 110 as quickly as possible.—Skip Shaft: The ground in the 70 cross-cut, south of this shaft, is very easy for driving, and at the present time requires timbering; but so there is no appearance of the lode, although the ground is getting wetter as the end advances. All other places are without change, and the stope throughout the mine are looking very well.

MINERAL CORPORATION OF GREAT BRITAIN.—W. Bennetts, Oct. 1: **HAENA, HIGH HAENA, AND GREAT D'ERESBY MINES:** There is nothing calling for special remark at our mines during the last week. Everything is progressing satisfactorily. We have completed the erection of all the stands and launders from the side of the mountain to the new water-wheel, so that everything is now completed in that department. We have now a large quantity of ore on the bank, and the men are busy with the engine, besides some of the ore that has been broken and ready to be trammed out as soon as it is wanted. We have also laid open enough ground to put on in No. 2 level 30 men stopping on good paying ground. At surface we are completing the engine pool, so as to save all the water from No. 3 adit for the dressing-floors.

MONEYDD GORDDU.—J. G. Green, Oct. 1: All the bargains maintain values put on them last week. The winze sinking below the 12 is down 32 ft., and is worth 30 cwt. per fathom for lead, the lode not containing quite as much blende as when last reported. I am glad to notice by your favour received this morning that there is an advance in the price of our ore on the last sampling of 28*s.* 6*d.* per ton. We are busy carting away the parcel (30 tons), 14 tons being delivered.

MORFU DU.—T. Mitchell, Oct. 1: The sinking of the engine-shaft is progressing fairly—2 fms. 4 ft. 6 in. sunk last month. No change to notice here, as the men have contracted to sink the whole draft (12 fms.) for 14*l.*. We have relet the stope in back of the 48 to four men, to raise bluestone (zinc ore), at 8*s.* per ton. The stope at the 38 by two men, to raise bluestone, at 8*s.* per ton. The stope in back of the 38 by nine men, at 6*s.* 6*d.* per ton. The returns for the month of September are estimated at about 125 tons.

NEW BRONFLOYD.—T. Kemm, Oct. 2: Setting Report: North Lode: When I was in the 121 some days ago, and from observations then made, I am not satisfied as to the length of ore ground opened in this level, which does not in any way correspond with the level over the 110. The said level is extended 24 fathoms west from shaft, and 6 feet from winze, and the forebreast is in a poor bar of ground, which made in upper sections from the 40 down, and it is my opinion that when the level is through this unproductive piece of ground, which may extend for about 2 fathoms, we shall have a paying lode for some fathoms in length; in order to prove this a bargain is let to two men, at 150*s.* per fm.—Middle Lode: The part of the lode opened in by the west of Gundry's cross-cut, during the past month has proved to be much of the same character as formerly reported, being principally killas, carrying strings of spar, intermixed with a little lead ore, but not to value; I think it advisable now to cross-cut the entire width of the lode to prove its value, &c., sincerely hoping favourable results will be obtained. Two men to continue the 52 end, east of No. 2 shaft, at 140*s.* per fathom; the part of the lode opened on by this drive has within the last few days become very hard, and is letting out more water, from such indications we may expect an improvement. The men in the intermediate level, between the 52 and 73, have cut through the lode, which has proved to be from 8 to 9 ft. wide, and is principally composed of hard spar, intermixed with small patches of killas, and in places showing a little ore; the lode altogether is presenting a strong and masterly appearance. We have either cut through the same in a poor place or a rich bunch of ore gone down in the sole of the level over the 52 has taken a strong dip west; to prove this a bargain is let to six men to extend in that direction, at 240*s.* per fathom; the foregoing prices include hauling and tramming expenses.

NORTH TRESKERBY.—M. George, Oct. 2: The sinking of Doctor's engine-shaft goes on well, the men are making fair progress, and the ground is most congenial for ore. The lode in the 36, driving west, is 5 ft. wide, and is strong mundle, quartz, and good stones of copper ore. The lode in the 24, driving west of the cross-course, is 4 ft. wide, and yields copper ore to save. The lode in the winze sinking below the 24 is 3½ ft. wide, and worth ½ ton of copper ore per fathom. The lode in the rise in the back of the 12, west of engine-shaft, is 4½ ft. wide, and worth 1 ton of copper ore per fathom, with a rich vein of tin on the north part of the lode. The lode in the shallow level, driving west of the cross-course, is 3 ft. wide, and worth 2 tons of copper ore per fathom. The lode in the stope in the bottom of the shallow level is 3 ft. wide, and worth 1½ ton of copper ore per fathom. The pitches continue to yield the usual quantities of ore. The works throughout the mine are steadily progressing.

PANDORA.—H. Nottingham, Oct. 2: The 33 end driving south is to-day showing some good stones of lead with the blende. We shall have the tramway and new wagons in the bottom level by the end of the week, by which time we shall have a lot of very good stuff to come up from the stope in No. 1 winze. Other points as last reported. We have sold this week for the month 18 tons of lead ore at 9*l.* 6*s.*, and 25 tons of blende at 2*l.* 12*s.* 6*d.*

PARYS.—T. Mitchell, Oct. 1: I beg to hand you the setting report for October. The 90 cross-cut south, by eight men, at 13*l.* per fathom, the ground has become a little harder within the last few days, but continues strongly intermixed with sulphur and small patches of copper. The 90, west of cross-cut, by four men, at 7*l.* per fathom; the lode here is about 2 ft. wide, consisting of quartz, peach, and sulphur, with a little copper ore of good quality, and, on the whole, the forebreast looks very promising.

PATELEY BRIDGE.—C. Williams, Oct. 2: The Rake vein, in the 40 west, is 6 ft. wide, embedded between two well defined walls, and the ore course on the hanging side is about 21 in. thick, of nearly solid lead, worth fully 3 tons per fathom, and improving. The ground is moderately easy to work, and excellent progress is being made in driving. The same vein, in the 40 east, is 5 ft. wide, consisting of quartz, gossan, carbonate of lime, and rich lead ore, producing of the latter 2 tons per fathom, with every prospect of increasing in value: the ground here is also favourable, and the men are working with spirit. The same vein, in the 30 east, is 5 ft. wide, composed of spar, gossan, and lead ore, worth ½ ton per fathom, and looking highly promising for an immediate improvement.

The 30 north-west, on Fielding's vein and branches, is still short of intersecting the north part of the lode, although it has passed through several nice strings of spar spotted with ore. The tribute pitch in the 30, over this level, is worth 12 cwt. of lead ore per fathom. The tribute pitch in back of the 30 east is worth 12 cwt. of lead ore per fathom. The tribute pitch in Fielding's vein, in the 20 north-west, has improved, now worth 1½ ton of lead ore per fathom. Other points unchanged. All our machinery is in excellent order, and working splendidly. Surface operations proceeding regularly and well.

PENHALLS.—S. Bennetts, P. Vian, Sept. 27: The lode in the 70 east end has been cut off by a gossan, and thrown up some 6 to 7 ft. As yet it is not cut through on the north side of this gossan. The stope in the back of this level are producing their usual quantities of tin. The rise in the back of the 40 west is producing low quality tinstuff, but is not quite so tiny as it was a few weeks since. A stope at this point is worth 8*l.* per fathom. At the flat-rod shaft the lode in the winze below the 30 is poor, although large and of a promising nature.

PENNANT.—Oct. 2: I am very glad to be able to send you the following report: Our six men who were driving for the sump in the bottom of the 60 have, I believe, to-day got up to it; they will at once clear it up to the bottom, where I expect to find a good deposit of lead ore and barytes. The former proprietors made the discovery, but were unable to explore upon its course owing to the presence of water, but our deeper operations have effectually drained the ground. I expect very good results from here. In carrying through this operation a second discovery has been made. My explanation is as follows: A cross-cut has been driven north some little way west of the sump, and has intersected a nice-looking lode, containing sulphate and some lead ore, and its underlay is south; so that the Pennant lode will form a junction with the north lode. In the dressing I have orders on hand which will make a great clearance.

PLASDDU (Llanarmon).—The leader of lead ore has increased to 5 in. wide on the hanging side, at No. 4 shaft, on the Maesypwll lode, and the rider of ground is giving way to lead ore on the heading, so we anticipate 2 ft. of ore when a little deeper.

SOUTH CAMBRIAN.—A. Williams, Sept. 31: The lode in the adit level east has been disordered by an oblique branch running contact with it from the north side, and turned it into a mass of flooken, but I am pleased to say that we are now through the disordered ground, and the lode is now again improving every foot we drive on it. It is composed of a very nice course of blende, with occasionally good stones of lead ore,

is worth 121. per fathom. We have begun to drive a level from the Plantation shaft, which we term the 80 west. The lode in the 70 west has been rather disordered by means of a cross branch. The end is now worth 101. per fathom. The 80 west is worth 121. per fathom. The 70 end, east of King's, is worth 77. per fathom. The lode in back of this level is worth 122. per fathom. The 80 end east is worth 81. per fath. The 93 east is worth 97. per fath.

SOUTH DARREN.—Henry James, Sept. 25: Setting R port: There is nothing new to report in the shaft and 100 west this week. The water is in for the roof of the 100, and No. 1 stop in back let to six men, at 31. per fathom; the lode is worth 134. ton lead ore per fathom. The 90 end to drive, by six men, at 74. per fathom; the lode here is disturbed by some flat joints: crossing the end, which I expect shortly to get through, and enter a good section of ore ground worked upon in the 80 just over this point—to-day there is a strong feed of water issuing from the forebreast, which indicates a favourable change soon. The lode in the 90 winze, sinking by six men, at 91. 10s. per fathom, is worth 134. ton per fathom. No. 1 stop in back of this level, by six men, at 31. per fathom; the lode is worth 134. ton per fathom. No. 2 stop, by four men, at 21. 15s. per fathom, is worth 134. ton per fath. No. 3 stop, by two men, to rise and stoop, at 31. per fathom; the lode is worth 10 cwt. per fathom. A stop in back of the 80, by twelve men, at 31. per fathom; the lode is worth 134. ton per fath. A six of these men will resume their bargains at the 100 next week. In all the bargains 5s. per fathom is to be deducted for tramming of stuff. We have six ribble pickers working by 20 men. The 41. 10s. one at 81. and two at 71. per ton lead ore, and 15s. per ton for copper (each pick); tributors to pay all cost. The tramming of stuff to shaft, by six men, at 12s. per 100 skips. To fill the skips, by three men, at 6s. per 100 skips. The landing, by two men, at 5s. per 100 skips. The drawing, by two men, at 61. 15s. per month. The spalling of ore for the crushing mill, by four men, at 101. per month. We shall sample to-morrow 30 tons of silver-lead ore, and 50 tons of copper ore, for sale on Friday, October 3. All the machinery is working well.

SOUTH TOLCARNE.—W. Rich, James Knottwell, Oct. 1: The lode in the rise in the 35 east carries stones of ore, but the ground is rather harder than usual. We are making fair progress in driving the 35 cross-cut south towards the tin lode.

TANKERVILLE.—Arthur Waters, Sept. 30: No change anywhere on Tankerville lode proper since my last report.—Pump-Sump: The men are pushing on cutting ground for winze-road, fixing lift, &c., and we expect to commence cutting pit, &c., for No. 2 winze in about eight or ten days hence. We have commenced the new shaft to go down on the said mine, and beg to say that from it we shall be able to command three or four levels in Boat level, all of which (we may say) run parallel with Pump-sump lode and Tankerville lode proper. All these lodes are found within a distance of 50 fms.—Pump-sump lode, three middle lodes, south lode, and Tankerville lode.

TEESDALE.—J. Black, Sept. 25: In the west end forehead there is no change in the quantity of lead ore. The vein is softer to work, more reddish mineral about, ore is clinging altogether to the west cheek, while all along it used to be on the east cheek.—West End Stop No. 1: This working is also about the same at the top, while at the bottom the ore is still making into the east cheek. The last shot which was fired was bored nearly altogether in lead ore; we are taking it about 3 ft. wide. The west end stop No. 2 was looking very much poorer than when I last saw it. Another shot might just make all the difference with it; it is always changing.—West End Stop No. 3: This working is still improving; it looks really fine for lead ore, and the mineral looks easy to work, and improving each time I see it—it is going to be the richest working in the mine.—Rise: There has only been three shifts done here since it was started; one end looks, and is very much, poorer than when they started—the next shot might make all the difference. In the east branch there has been no more vein shot off; the men have been freeing it in by the side—it also looks softer, and the vein seems to be widening. Dressing and drawing now going on satisfactorily.

TYN-Y-FRIG.—J. Jones, Sept. 30: We are in the first stop, west of the 4th cross-cut, which produces about a ton of blende per fathom, of which from 25 cwt. to 2 tons is pure. There is also a leader of lead (steel) ore, but we cannot say how much per fathom, as it is only a short leader at present. We are also tramming and picking the ore we cut last week, but we have not weighed it yet.

WEST ASHETON.—Joseph Garland, Oct. 1: The 30, going east from footway rise, 18 fms. west of main cross-cut, is being driven at good speed; the lode is yielding about 1/2 ton of lead ore per fathom. There is no change to notice in the 40 end west. The stopes in the back of this level maintain their value, about 1 ton of ore per fathom. The 50 end, west of the 40 end, is looking very much poorer than when I last saw it. We shall sink down on the rise from the 40 end next month, and thus communicate the two levels more speedily. The pitches in the 50 are turning out their usual quantities of ore. The cross-cut in the 60 is now into the lode over 2 fms., but no footwall yet reached; it is a very strong lode, but as yet contains no ore of importance. The 70 end is in hard ground, and our progress is, in consequence, comparatively slow. All other underground and surface operations are going on regularly. We sampled on the 24th ult., for sale to-morrow, 40 tons of lead ore, and on Monday next we shall sample 60 tons of blende.

WESTMINSTER BOG ISSA (Llanmorog).—The washing floors and water-courses are completed, and we are now busy dressing the tributors ore from the various pitches, which continue rich, and every indication of improvement.

WEST HOLWAY.—R. Rowlands, Oct. 2: We are walling up the shaft and making good progress; and when complete we shall start sinking on the lode, and I hope make returns without delay.

WEST PATELEY BRIDGE.—David Williams, Oct. 2: The 67 north-west has been extended 28 fms. from the shaft. The vein in the end is 2 ft. wide, between well defined walls, with a small leader of clay on the hanging-wall, and a small feed of water oozing therefrom. The other part is composed of imperfect, with traces of lead ore, and on the whole is a most promising vein. We have other 9 fms. to reach to cross-joint seen in the 56 above, and being a feeder greatly improved the ore at that point. I am pressing this end to get under the same, and will then commence rising and sinking to communicate between both levels for the double purpose of improving the ventilation and prove the vein, and I trust open out a section of profitable stoping ground. In the rise of back of level the vein is improving as we get up; at present 5 ft. wide, and intermixed throughout with patches of lead ore. I find I cannot profitably place more men in this level to drive and work upon the vein, as the account of defective ventilation, until the said communication is effected, although I am very anxious indeed to work it, inasmuch as it contains in addition to three small solid ribs of ore, a good mixture of ore throughout, and will, I feel certain, at no distance again resume its former productiveness, and equally as good as in the old workings above. The 67 south-east is extended from shaft 23 fms. 3 ft.; the vein in the end being 2 ft. wide, with a small leader of ore on the footwall, but not sufficient to value. A stop in the back of the level is worth for lead ore 12 cwt. per fathom. The 56 north-west is extended from the shaft 40 fms. 1 ft. 6 in., in a vein 2 ft. wide, consisting principally of limspar, sulphate of barites, and galena, and worth for the latter fully 3 tons per fathom. A stop in the back of the level in a vein 2 ft. wide, worth 5 tons per fathom. At a point 35 fms. from the shaft we are cross-cutting north to the new vein in the bottom of cross-cut now in the 263. We have a flat lode 12 in. thick, and producing saving work for dressing.—No. 2 Shaft: We have cleared, repaired, and put in a tramway in the top level to the end, and have set a pair of men to drive west upon the vein, which appears to be wider than the level, and is a very promising vein. A cross-cut south upon cross-joint, 5 fms. behind the end, is in 10 ft., and within about 35 ft. of intersecting the old vein. The cross-cut south to the parallel vein has been extended 34 fms. 4 ft.; the ground in the present end is again tight and spare for driving. The north cross-cut is in 26 fms. 4 ft.; the ground here is much the same as for some time past. A pitch below the 28, east of shaft, at 51. per ton of dressed ore. The 28 east upon discovery vein is producing saving work for dressing. We are now working 13 bargains underground. On surface our machinery is in excellent order, and working well. We are progressing favourably with the grating and dressing. I shall have a parcel of pig-lead to weigh off next week.

WEST WHEEL PEEVOR.—W. T. White, Sept. 30: Setting Report: Michell's engine-shaft is now down 7 1/2 fms. below the 10 fm. level, and the men are making very fair progress, although the ground is a little against them. The lode is being met with the few weeks a few weeks down to the 20. The lode to drive west on main part of the lode at 47. per fathom; lode full size of the end, and producing saving work for tin. I would here remark that this lode was intersected in the cross-cut driving north last month, and in the course of a few days we shall have a good parcel of stuff therefrom, when its proper value can be ascertained. We also set the 10 to drive east on same at 47. per fathom; the lode here is also full size of the end, and of a similar character stuff. We are still sinking the trial shaft, which is now down about 9 fms. below the surface, and the stuff being produced therefrom is of a good quality, and occasional stones of tin are being met with that will make a produce of full 80 per cent. tin. I am pleased to say the mine is opening up exceedingly well, and quite to my expectation.

WEST WHEEL TOLGUS.—Oct. 1: The lode in the 155, west of Taylor's shaft, is 5 ft. wide, and yielding 2 tons of copper ore per fathom. The lode in the 145 west is 2 ft. wide, and yielding 1/2 ton of ore per fathom. The lode in No. 2 winze, sinking in bottom of this level, is 5 ft. wide, yielding 1 1/2 ton of ore per fathom; we expect to communicate this winze to the 155 some time next week. We have intersected a branch in the 135 cross-cut south, and have cut into it about 18 in., but are not through it, which is producing stones of ore, but not sufficient to value. There are now about 3 1/2 fms. further to drive to reach the south part of the lode. The lode in the 125, east of cross-cut, on the south part of the lode, is 4 ft. wide, and yielding 3 tons of ore per fathom. There is still more lode standing in the south side of the level that we have put a pair of men to strip down to ascertain its value. The lode in the 125, west of cross-cut, is 6 ft. wide, and yielding fully 4 1/2 tons of ore per fathom—a very promising-looking lode. The lode in the winze sinking in the bottom of this level is 4 ft. wide, yielding 3 tons of ore per fathom, but the ground is hard and spare for sinking. The stopes throughout this part of the mine are producing their usual quantities of ore.—Richard's Shaft: We have intersected the cross-course in the 65, west of shaft, which is 2 ft. wide, composed of floukan and spar. We have cut through it, but have not discovered the lode to the west of the cross-course; the men are now driving south, as we believe the lode is heaved a little in that direction. The cross-course is not so wet as we expected to find it. There is no change in the 95, west of shaft; the lode is still split up and disordered, and letting out a good deal of water.

WHEEL CREBOR.—John Andrews, Sept. 30: We are still engaged cutting through the lode at the 120, west of winze, which is 20 ft. wide, but has slightly fallen off in value, and the winze is now 80 ft. per fathom. The lode in the 108 east is unproductive at the present time, but I think will improve again shortly. The lode in the stop in the back of the 108 is worth 122. per fathom. The new lode at the 108, east of cross-cut, has suddenly declined in value, owing to an oblique branch crossing the end, composed principally of copper ore, quartz, and capel, and is now worth 501. per fathom. The lode in the end, west of cross-cut, has also fallen off in value, and is now worth 107. per fathom. There is no change in the 48 shaft. At the new shaft we have drawn all the pitwork to surface, and are now engaged putting down ladder-road, which will be completed to-morrow.

—J. Andrews, Oct. 2: The new lode at the 108, east of cross-cut, is 8 ft. wide, 3 ft. of the north part of which is solid ore of 12 to 14 per cent. produce, and worth 507. per fathom; and the lode at the 120, west of winze, is equally as good as reported last Tuesday—801. per fathom.

—J. Andrews, Oct. 3: Telegram: Now up from underground. New lode, the 108, east of cross-cut, still worth 501. per fathom. The 120, west of winze, 801. per fathom.

WHEEL GRENVILLE.—T. Hodge, Oct. 1: We have done nothing in the 185 west end during the past week, the men being engaged cutting in north to prove the lode in that direction, but below the 4th level. Up to this time nothing of value has been met with. In the 165 east end the pit carried in poor. I believe the productive part of the lode is standing to the north. The 150 east end is worth 81. per fathom, and likely to improve as we advance. The 140 east end

is worth 81. per fathom. The stopes on the whole are not looking quite so well. We shall commence to-morrow to fix our plunger-lift at the 150 fathom level, so shall not be able to work in the bottom levels for the next three or four days.

WHEEL JANE.—R. Southey, Sept. 27: In the 40 ft. adit level we are still continuing the cross-cut north, and have driven in the 14 fms., but no north wall has yet been intersected. This end is being driven, by four men, at 91. per fath.; the lode is worth for the part carried 71. to 107. per fath. We have just laid down a tram-road here close to the present end, in order to facilitate the bringing away of large quantities of tinstone when the levels are opened out on the north part of the lode. In the shallow adit we have not yet communicated with the rise alluded to in my last report, in consequence of the lode proving larger than we expected. We are driving an end across the lode, by four men, at 101. per fathom; lode worth 201. per fathom. When this piece of ground is holed large reserves of mineral will be available to be sent to surface at an easy cost. It will be seen that the lode, both in the deep and shallow adit levels, is exceedingly large, and although it is of a low quality, I am pleased to say we are opening up and increasing our reserves. At surface we have been making several alterations in our dressing department—classifying the mineral from the stamps, and jiggling instead of buddling as heretofore; this we find most beneficial in saving the tin and considerably reducing the costs of dressing. I have every reason to believe this work will be completed in the ensuing four months, when I shall report more fully thereon. I may here add we cannot make such rapid progress in completing this work as I could desire, consequent on having to keep the returns of tin whilst the alterations are being made. In conclusion, I am pleased to say the results obtained during the past four months are very gratifying. The returns of tin have been kept up, the bankers' overdraft considerably reduced, and the costs (having due regard to the proper development of the mine's resources) are kept as low as possible.

WHEEL PEEVOR.—W. T. White, Joseph Pryor, Sept. 27: All preliminary work for the more expeditious sinking of the engine-shaft below the 80 being completed, the shaftmen are now making good progress. The 80, to drive west, at 61. 10s. per fathom; lode worth 381. per fathom. The 70, to drive west, at 71. 10s. per fathom; lode worth 181. per fathom. The 60, to drive west, at 51. 5s. per fathom; lode worth 251. per fathom. The 48, to drive west, at 51. 5s. per fathom; lode worth 107. per fathom. A cross-cut to drive north at the 48, at 51. 10s. per fathom. The 36, to drive west, at 51. 5s. per fathom; lode worth 401. per fathom. A rise in the back of the 36, at 81. per fathom; lode 7 ft. wide, and worth 301. per fathom. This is an important point. The 36, to drive east of main rise, at 61. 10s. per fathom; lode worth 91. per fathom. The 35, to drive west of No. 1 cross-cut, at 51. 10s. per fathom; lode at present not to value. The 26, to drive west, at 61. 10s. per fathom; lode worth 141. per fathom. A cross-cut to drive south at the deep adit level, at 51. per fathom. We are daily expecting to communicate the main rise with the winze in the bottom deep adit level, hence we are not re-setting these two bargains. We also set six stopes on turtow at prices varying from 31. to 31. 15s. per fathom; lode worth in each 111. per fath. The mine still maintains its large returns of tin, and at the forthcoming meeting, to be held in about three weeks hence, the greatest profit the mine ever made will be shown on that occasion.

LLANBADARN FAWR LEAD MINE.

Mr. Walter Eddy, of Llangollen, writes as follows:—I have made a careful examination of this mineral property. It adjoins the celebrated old Goginan Mine on the west; is in the same band of ore-bearing strata as that mine—also the Great Darren and other productive mines in that part of Cardiganshire. It is bounded on one side by the turnpike road leading to Aberystwith, and is eight miles from that town. The set is about a mile in length on the run of the lodes. The royalty is very moderate—one-sixteenth. There is plenty of water-power (with leads to the mine) for pumping and dressing the ore, so that it possesses unusual advantages for developing and working cheaply. The existence of four lodes has been proved in the set, running nearly east and west, and two of them partially worked upon, but I shall confine my remarks principally to the most northerly one, from which the greater part of the ores raised in the mine have been got. An adit level has been driven upon this lode for about 60 fathoms in length, and some capital lead ore raised in the drawing, though the deepest point gained here is only a few fathoms from surface. A shaft also has been sunk upon it to a depth of 35 fms., and levels driven from the bottom of the shaft to the east 15 fms., and to the west about 30 fms.

I could not examine these bottom levels as they were full of water, and can only form an opinion of the value and prospects of the lode there from the stuff broken from it, and now lying on the surface, of which there are several tons being prepared for market. This ore and the veinstuff associated with it show that it came from a wide and strong lode, and is composed of large solid lumps of lead ore, with a good mixture of lead and copper ores and blende. This lode will form a junction to the west not far from the present forebreast with another lode seen on the surface, and which was worked open-east evidently by the Romans, as stone wedges and stone hammers were found in clearing out the debris. To drive to the junction of these two lodes is in my judgment a capital trial, and likely to result in the discovery of a large body of ore. In proximity to this mineral set to the Goginan and other rich mines, being also in the same ore-bearing strata, and from the appearance of the lodes where seen and the ore got from the principal one at such shallow depth, I consider it a good legitimate speculation, and one holding out more than ordinary prospects of proving a successful one.

FOREIGN MINES.

ST. JOHN DEL REY.—Telegram from Morro Velho, dated Rio de Janeiro, Sept. 29: Produce eight days (second division of September), 9280 oits. = 35844; yield, 7 1/4 oits. per ton.—Culaba: Stamped 220 tons in 15 days; yield, 2 oits. per ton. BLEE T. T. P. Price: Oct. 2: Telegram.—Clean up, 816,000.

DON PEDRO.—Capt. Vivian, Sept. 4: Mine: New Lode at Bryant's: Since this lode has been discovered, which is only a short time ago, it has produced a large quantity of ore, although not rich; but considering it is only yet opened on near the surface, and still being worked by the light of day, has shown good results, and the discovery may be considered a very important one. From the 17th of last month the number of boxes of ore taken from the vein has been 57, which was found in the south part of No. 2 stop, and has been opened on 27 ft. in length to the quantity of gold obtained in this vein in 17 days was 510 lbs. in length at 88. 50 cents, and 2165. 15s., and is worth 932. 15s. per fathom in length of vein, or 644. 15s. per ton of ore as taken from the vein. Of course I do not mean to infer that such is very rich, but still it is a sort of thing worth finding, especially being in a part of the mine which had been abandoned for some years, and where no vein or even lode was known to exist. In the northern part of the said shoot in No. 1 stop an old rise has been met with, which I am informed was put up from the workings below to pass debris from the surface for filling and supporting stopes. I am pleased to state that we have been very successful in exploratory work by laying out large bodies of lode in various parts of the mine, and had been able to work the rich courses of ore to advantage which are at the bottom of the mine, together with that discovered in the explorations, then it would be clearly seen that large profits and regular dividends would follow; but not having been able to accomplish this for reasons with which you are already familiar, it is a great misfortune to the company, as well as to myself; however, as regards future prospects, I have not the slightest reason to alter my opinion so frequently expressed on the subject.—No. 1 Incline Sump Shaft: We have not succeeded in getting any deeper in this shaft since last advised, having had some repairs to the hoisting gear, and the 40 fm. level. No. 2 Incline Shaft: Good progress has been made, but has not yet succeeded in getting through the choke. The produce for August amounts to 2550 oits., which I am happy to say is still a further increase, and as you will understand, is owing to the discovery at Bryant's.

SANTA BARBARA (Gold).—Mr. Tregellas advises that no change had taken place in the general appearance of the lode, the stopes Nos. 6 and 7 south continuing to yield mineral of fair quality, but that being quarried from the No. 5 south appeared to be less auriferous. Mr. Tregellas further reports that the new tram-road, which was in practice on the 20th of August, and four men were at once relieved from drawing the tramcars and put to quarrying mineral in the ore. After some slight modifications to this new tramroad had been effected, four or five more men would be relieved, and these could also be made available for raising ore. An addition had also been made to the permanent force by the engagement of ten blacks, six being men of whom five had already been set to work in the mine. The augmentation of the force boring in the mine will, it is expected, enable the output of ore to be sensibly increased for September.

FRONTINO AND BOLIVIA.—The statement of profit and loss for the month of July shows a profit of 322. 2s. In addition to the above cost of 21401., there has been spent on capital account, including purchase of 5824. mining tools, mules, and cattle, 9021., and on extraneous charges at Medellin 1807. Mr. Robert White reports, that although the excessive rains at the mines have added largely to the month's cost and limited the produce, the mines are being opened out very satisfactorily, and will give a different result next month; that in Silencio samples from the deepest level (the 103 feet) show the pyrites bound together with strings of gold, and that the lode is giving splendid specimens; that in Palmichala there is a great improvement in the 56 ft. level; that in Restaurador the lode is of first-rate quality, and that the Salada will, he believes, prove as good a mine as any belonging to the company.

ANTIOQUIA (Frontino).—The directors received advices under date Aug. 9, accompanied by a remittance of gold valued at 731. The produce of the mines and of the gold purchased at the mines for the month of July last. The following is the statement of the profit and loss for the month of July:—73 tons of ore produced 25 oits. of gold (average 6 2/5ths dwts.), 731. 5s. 11d.; cost at the mines and at Medellin, 2431. 16s.; loss, 1707. 10s. 1d. In addition to the monthly cost of 2431., 1967. 16s. has been spent on capital account. By the latest advices from the mine (Aug. 9) the agent reported to Messrs. Restrepo, the bankers in Medellin, that the best workings were again in rich ground, and with this report an extraordinary rich sample of the mineral was sent. An epidemic which prevailed at the mines has retarded the works; 86 men were affected, but it has passed away, and the mines were again proceeding satisfactorily.

RICHMOND CONSOLIDATED.—Telegram from the mine at Eureka, Nevada: Week's run, one furnace, 332,000, from 478 tons of ore. Refinery, 475,600.

—R. Rickard, Sept. 10: During the past week explorations in the mine have been carried on with usual regularity. The 200 cross-cut has been drifted 20 ft.; about 5 ft. back from the present end a small bunch of galena and low grade ore was struck. A small winze was sunk below this level a depth of 19 ft., when all indications ceased. The end is still in very favourable ground, and according to indications were nearing an ore body. The 600 west drift has been advanced 16 ft. in low grade ore. All the present face of the drift is in iron and ledge matter, and is looking very favourable for striking pay ore shortly. The 600 cross-cut, west from south fissure drift, has been advanced 23 ft. without any change to mention in the ground. The 600 cross-cut from west drift has been advanced 13 ft. in very hard ground. The 800 quartzite drift has been advanced 10 ft.; the present end is in limestone. The rise in back of 600 is up to the level of the 500. In the top of the rise the ore is narrow. We have now begun to stoop from the rise, which is opening out very well. The winze sinking below the 600 is now down a total distance of 66 ft., on an angle of about 20°. The bottom is in ore, and promises to open out to a large body of ore. The prospects in this part of the mine are very flattering. The furnaces are working very well. We shall be ready to start No. 1 on Monday next.

COPIAPO.—J. H. Vivian, Aug. 16: Dulcinea: There is no particular change in any of the underground operations since my last letter. Good progress has been made in sinking Fletcher's shaft, which is now 850 metres below the 160; the water here is decreasing as we gain in depth. The 160 north is looking very well; the lode is 4 ft. wide, and will yield 5 tons of ore per fathom. This level south of shaft is not quite so rich, worth 2 tons of ore per fathom. In the cross-cut driving west at the 150 north we are intersecting branches of ore, but our main lode is still further west. In the 140 north the lode is 2 ft. wide, and will yield 1 ton of ore per fathom. Since passing the cross-course the sides of the level have become soft, so that I am obliged to have it timbered. In the cross-cut west at the 120 we have intersected several branches of ore; one is about 1 ft. wide, and on this I intend to drive north. It is my impression these branches will form a junction north of cross-cut.—Checo: In the winze sinking in the 80, at Price's shaft, the lode continues to yield about 2 tons of ore per fathom; sinking by one man, at 813 per metre. This winze is down 15 1/2 metres under the 80, the lode producing ore for the whole distance. We hope it may lead to some improvement; the appearance of the ground to-day is a little more favourable. In the winze sinking under the 50, on the south lode, the lode has improved a little since last reported on, and at present it is yielding about 3 tons of ore per fathom; sinking for the past month by one man, at 810 per metre.—Stoping in back of the 50: In the stop east of rise, working by one man, the lode has recently fallen off in value, and this near the boundary; we cannot expect much improvement at this point. In the stop west of rise, working by three men, the lode continues to yield about 2 1/2 tons of ore per fathom. In the winze sinking under the 40, on the south lode, by one man, at 814 per metre, the lode is 2 ft. wide, producing 3 tons of ore per fathom. The estimated production for July is about 30 tons of 14 per cent. ore. I am glad to report there is a little improvement at the silver mine. About a fortnight since a small branch of silver was discovered on the middle lode, and is at present looking promising. Other points of exploration remain without change.

ISABELLE (Gold and Silver).—L. Chalmers, Sept. 8: I send you sample of the rock through which we are driving; in this rock with two drills, and part of the time only one, we made last month 204 ft., not of leader, but full sized 8 by 9 tunnel. We fire 26, some 40, 5 to 6 ft. holes every 24 hours, and use 100 lbs. of Giant or Vulcan powder in 24 hours, more or less. We run our tunnel the whole size, 8 by 9, as we go, without a header. I enclose foreman's report for last week, with only one drill, having broken the clamp of the other.—Foreman's Report: Total distance from monument to face of tunnel, 869 ft.; distance run for the week, 44 ft.; rock medium; good blasting; powder fuse causing some delay.

COLORADO UNITED.—The accounts of the manager for the month of July exhibit a profit of \$150. The expenditure includes the sum of \$2050 paid for cord-wood, lumber, &c., which remained on hand. But for this provision for the winter the profit for July would have been \$2200. The mine continues to open up satisfactorily, especially in the lowest workings.

—The advices of the manager, dated Sept. 15, state as follows:—Mine: During the month of August the work of opening up new ground has not progressed so rapidly as I could wish, owing to the giving out of our hoisting rig at the collar of the Silver Ore shaft, and the necessity for changing the method of gearing. Silver Ore shaft is now down 51 ft. from the 9th level; all the way down from the 9th level to present bottom there has been more than an average showing of ore. The 9th level, west of Silver Ore shaft, is 23 ft. beyond winze No. 4. In a few days I intend commencing to stoop the block of ground between winze No. 4 and the westerly end of Silver Ore shaft. The 9th level, east of Silver Ore shaft, is now in 120 ft., and for 110 ft. is driven on a steady continuous vein of ore ranging from 4 to 12 and 14 in. in width. The most encouraging feature of the level is that the ore continues strong in the floor, indicating that the ground between the 10th and 9th levels, east of Silver Ore shaft, will yield largely in ore.—The 10th Levels: I hope by the end of this month to have gained sufficient depth from which to start out the 10th levels from Silver Ore shaft.

PLACERVILLE.—I. Thomas, Sept. 8: During the past two weeks the 5th level has been driven north 4 ft., making a total length of 54 ft. The winze from 4th level has been sunk 5 ft., making a total depth of 27 ft. Extracting.

SENTEIN.—Sept. 27: The managers report as follows: Good progress has been made at the mine this week, and we have broken 140 tons of very good class ore by about 50 miners. All points of operation continue to yield an abundance of ore, and there is no change to notice in any part of the mine. We have commenced to cross-cut to the lode in the St. Barbe level, and are pleased to say we have already broken some first-class mineral, but we do not think we have yet reached the main part of the lode. In a few days on this point we will report further. There has been delivered at the dressing floors this week 134 tons of ore. We have opened ground sufficient to hang a tackle at La Souquette, and no time will be lost in fixing it and clearing up the winze. We send you to-day samples of No. 1 and No. 2 parcels of silver-lead ore, about 80 tons of No. 1 and 45 tons of No. 2. We are now awaiting sacks or barrels to send away this lot of lead, and a large quantity of blende. During this week there have been some pretty heavy falls of snow in the mountains, which has greatly retarded our bringing down the ore. Weather now fine.

UNITED MEXICAN.—E. Hay, Aug. 23: Mines of San Cayetano de la Ovejera: In San Lazaro we have discovered a relic (wall of the lode) running north-west and south-east, but as it has not yet been traversed I cannot say for certain if it is the lower wall of the lode; should it be so it would prove that the lode has deviated to the north. Water is dripping abundantly from the many small relics that have been cut lately, and this makes us believe that if the relic mentioned above is not the lower wall of the lode we cannot be far off. The contrabando of San Pablo and San Antonio continue to give fair ore, that is thrown down in great part without blasting. This week two frentes have been opened in the contrabando of San Pablo, the one to the west called San Magin, and the one to the east San Luis; a little below this last frente is another called San Alon, all of which are in ore that seem to improve as we advance. We are continuing the end east of San Antonio, and have found some ore, on which we are driving now. Between the two winzes of San Pablo and San Antonio we are throwing down ore from a reserve. In the caso of San Pablo we continue to work downwards without any improvement being observed in the appearance of the lode. About 400 cargas remain in the ore yard, and 19% cargas of the last trip of the mules were not assayed, so that to all appearance the mine outlay, amounting to \$569, was covered. Next week the extraction will be larger, unless an adverse change takes place in the workings. The extraction of ore during the four weeks ending Aug. 28 amounted to 825 cargas, and value of the company's share \$1703.

FOREIGN MINING AND METALLURGY

The recent improvement in the Belgian iron trade is happily maintained. After six years of weary depression it is certainly well that this should be the case. At Charleroi the proprietors of rolling-mills have decided not to return to the old prices—ruinous prices they have, indeed, been of late. The scarcity of English pig in the European continent has led to a rise in Luxembourg pig; Belgian pig has immediately felt the influence of this rise, and stocks are diminishing. No blast-furnaces have, however, been yet re-lighted in Belgium. MM. Nicaise and Delcenel are constructing at present numerous railway carriages and trucks for Spain. The Belgian Metallurgical and Colliery Company is building at its Nivelles works more than 160 carriages and trucks for Italian railways and tramways; the same company is also building at its Tubize works locomotives for the Milan and Pavia Railway, and some Belaire carriages for the West Flanders Railway. This concern is now employing about 700 workmen, and has full employment assured for eight months to come. The Acoz and Cockerill Companies are not idle. The Sclessin Works are forwarding a good deal of iron abroad, especially for Japan. The Ongrue blast-furnaces are active, and the Espérance forges have received some important orders. The Administration of the Belgian State Railways will let contracts for 12,000 tons of Vignoles rails Oct. 15. In the year ending June 30, 1879, the Monceau-sur-Sambre Blast-Furnaces Company realised a profit of 99797., or 8.31 per cent. per annum upon its share capital.

The competition which Belgian coalowners maintain among themselves has prevented any revival in prices at present, but it appears tolerably certain it will take place before long. The Belgian metallurgical interest is becoming a larger consumer of coal, and colliery proprietors have been rather pressing urged to enter into long-term contracts. Winter supplies of domestic qualities of coal are being rather actively laid in. Advices from Ransart even state that trucks are beginning to make default, especially on lines recently taken over by the administration of the Belgian State railways. Coalowners are, under these circumstances, beginning to enquire rather anxiously what will be the state of affairs when beetroot has to be moved for sugar-manufacturing purposes.

There has been an active demand for domestic qualities of coal at Paris, but an equally favourable report cannot be made as regards industrial coal, for which the enquiries have been comparatively languid. In the Nord and the Pas-de-Calais coalowners appear tolerably well satisfied with the enquiry for domestic qualities of coal; there is also more activity in industrial coal than on the Paris market, thanks to orders which have assured employment for some little time at certain metallurgical works and construction establishments. A certain revival in the coal trade is noted in the centre of France; it remains to be seen whether this revival will continue. It is to be hoped that it may last, as the district has been rather severely tried of late years.

In the Haute-Marne orders have been restricted to re-assortments of iron and plates. Coke made iron has been somewhat neglected in this group; good qualities of this description have made 61. 8s. to 61. 12s. per ton. Mixed iron has been firm at 71. 4s. per ton, and puddled charcoal-made iron has brought 81. 8s. to 81. 16s. per ton. Machine iron has been disposed of with some difficulty. As regards sheets, the orders received have been of comparatively little importance, supplies having been laid in for the present. In the Nord orders have been received tolerably freely, but prices are still not considered to exhibit much stability; a recovery from the severe depression which has prevailed cannot be effected all at once.

The West-Prussian Mining Company have issued warrants for the quarterly dividend on the preferred shares, at the rate of 8 per cent. per annum.

The installation of Le Grand Journal, the publication of which has been looked forward to with much interest by those concerned in the development of the mining and industrial resources of France, as well as by the general public, has now been completed, and a large amount of attention has, in consequence, been directed to the shares. The capital is 5,000,000 frs., in 10,000 shares, 500 frs. paid, and it is pointed out that the corresponding shares in the *Lezars* is yielding 10 frs., and *Le Petit Journal* 300 frs. per share. The 300 frs. shares are redeemable at 1000 frs. are now quoted 800 frs. Everything has been arranged on a grand scale. A property has been purchased in the midst of the financial portion of Paris—*rue Montesquieu*—and all necessary and unnecessary provisions have been made for ensuring success. There is an immense hall, a conference hall capable of holding 2000 or 3000 persons, a printing office, library, double saloon for deputies and senators, special saloon for consuls, a *poste restante* with correspondence office for foreigners visiting Paris, a telegraphic agency which will compete with the

Agence Havas, a telephone on the best system, a corps of short-hand writers, room for 60 in-door editors (redactors) interested in the latter account is accidental as well as whatever is included in the "Ac." Surely shareholders with such an establishment ought not, as the Americans say, to "wear the wild and haggard look of a man about to start a newspaper," but should regard their speculation as adapted for those who consider mining enterprise is too speculative.

Devon Great Consols shares during the week have further advanced to 3½, 4½, and some of the principal buyers have been in the neighbourhood of the mine. The last month's sale of copper ore was about 780 tons, and they have sampled this week for this month about 1000 tons of copper ore. The mines are looking better, and some important discoveries of ores are expected, which may again cause excitement in the mining market, and a desire to be the possessor of an interest in these wonderfully rich mines, which have already, we believe, sold about 4,000,000, worth of minerals, and given in profits about 1,200,000. To the fortunate shareholders on an outlay of about 1024, only. Although the shares have been sold this week at the low price of only 3½, 4, it should be remembered they were once as high as about 75, to 80, per share. From what we learn from the neighbourhood of the mine the directors have very wisely decided to employ at once rock-boring machinery, and by this means open out quickly increased reserves of ore ground. There are no mines in this country which possess even half the valuable plant and machinery as that at Devon Great Consols, which if sold by auction to-morrow would probably alone bring the present price of shares.

Canada Gold, 2 to 2½; a large amount of drifting ground has been laid open and available for returns, particulars of which are expected shortly.

St. John del Rey, 270 to 280; the latest telegram from the mines at Morro Velho, dated Rio de Janeiro, Sept. 29, states that the produce for the second division (eight days) of September was 9250 oits., of the value of 3584½, the ley of the ore being 7.4 oits. per ton. At Cuibabá 200 tons of stone were crushed in 15 days, and yielded 2 oits. per ton. The company's alleged illegal slave-holding is again attracting attention in Brazil. The Rio News of Sept. 5 gives the full text on the contract signed on June 27, 1845, on behalf of the St. John del Rey Company by J. D. Powles, John Routh, Robert Addison, S. Donaldson, and Edward Hurry, by which the St. John del Rey Company took over the blacks belonging to the St. John del Rey Company (since defunct), and agreed that all negroes and children then under 21 years of age should upon attaining the age 21 years be absolutely free and emancipated, and that all negroes of whatever age and the issue of them should be absolutely free and emancipated at the end of 14 years from the date of the contract. Consequently all the St. John del Rey Company's slaves acquired from the Cota Branca Company should have been emancipated in or before June, 1859. This emancipation was never granted, and what is still more extraordinary is that Mr. J. N. Gordon, a Vice-Consul of Great Britain, which paid 34,000,000, for the abolition of slavery, should as superintendent of the St. John del Rey Company have illegally, it is alleged, matriculated 213 of these Cota Branca blacks as slaves for life between the passing of the Brazilian slave emancipation law of 1871 and Sept. 30, 1872, so that the injustice which has been perpetrated for 20 years will, but for energetic action, be continued permanently. The Rio News, however, is said to be in the hands of American emancipationists, who are determined to leave no stone unturned to secure the St. John del Rey Company's Cota Branca slaves their rights.

Don Pedro North del Rey, 4 to 4½; the report of Capt. Vivian (Sept. 4) is considered encouraging. He writes—"I am pleased to state that we have been very successful in exploratory works by laying open large bodies of lode in various parts of the mine, and had we been able to work the rich courses of ore to advantage which are at the bottom of the mine, together with that discovered in the explorations, then it would be clearly seen that large profits and regular dividends would follow; but not having been able to accomplish this for reasons with which you are already familiar, it is a great misfortune to the company, as well as to myself; however, as regards future prospects, I have not the slightest reason to alter my opinion so frequently expressed on the subject." Frontino and Bolivia, 2½ to 2¾; the advices (dated Aug. 14) were accompanied by a remittance of gold valued at 3000. The July accounts show a profit of 622½; the expenditure on capital account was 1082½. The Antioquia Company has received a remittance of 75. The loss during July was 170, and 194, has also been expended on capital account. The advices (Aug. 9) stated that the shaft workings were again rich in ore, and an extraordinary rich sample of the mineral was sent.

Richmond, 8 to 8½; the usual telegram from the mine at Eureka, Nevada, states that the week's run was \$32,000, from 478 tons of ore, with one furnace. During the week the refinery produced doré bars to the value of \$35,000. The manager (Sept. 10) reports that during the week explorations had been carried on with the usual regularity. The 200 cross-cut end is still in very favourable ground, and according to indications they are nearing an ore body. The 600 west drift is looking favourable for striking pay ore shortly. The stope in the rise in back of the 600 is opening out very well. The winze sinking below the 600 is now down a total distance of 68 ft., on an angle of about 30°; the body is in ore, and promises to open out to a large body of mineral. The prospects in this part of the mine are very flattering. Ruby, 2½ to 2¾; the whole of the debentures are said to have been placed, and capital secured for carrying out Capt. Rickard's recommendations. The property is situated in the immediate neighbourhood of the Richmond and Eureka, the latter of which mines paid 375,000, last year. It is pointed out that one great trial in the Ruby property is the driving of the 400 ft. level to intersect the Home Ticket lode immediately under the great course of ore seen above; and, as the hill rises rapidly in the Home Ticket, the lode will be cut upwards of 60 fathoms below the said course of ore. Several tribute pitches have been set, and working at the mines resumed.

Hultafall, 1½ to 2; it is reported that 500 tons of blende have been sold at a remunerative price, and the mines possessing such immense resources should do well, as a good market exists for their blende ores in Belgium, and their lead, of course, commands a ready sale anywhere.

In Hydraulic or Gold Washing Companies' Shares there has been much more business, both in Placerville and Blue Tent, the news received concerning them being very favourable. Blue Tent, 1½ to 2; a telegram received on Thursday announces a clean-up, with a return of \$14,000. Placerville, 2½ to 2¾; steady progress is being made, as per last advices, in developing the mine, which is opening up remarkably well, and also in the erection of the new ore stamp-mill.

Lead mine shares have participated in the general improvement, and a large amount of business has been done. Common English pig is now quoted 15½ per ton, and the miners are receiving for their ore a full proportion of the rise. Van, 16 to 17; no change is reported from the mine. Great Laxey report and accounts, to be presented at the meeting to be held next week, are fully referred to in another column.

Leadhills, 2½ to 2¾, and in good demand all the week, owing to further important improvements in four distinct lodes. But few lead mines present more cheering prospects than this extensive run of mines. Considerable extensions and improvements are being made to this company's smelting works and dressing-floors, &c., which will enable them to give increased returns of lead ores. Captain Arthur Waters, the manager (also of Roman Gravels), reports most favourably of the present position and future prospects.

Tankerville, 4 to 4½, and shares scarce; the mines are reported to be looking better in the various levels, and operations are being vigorously proceeded with in the development of workings on the big pump pump bunch of ore, and as Capt. Arthur Waters, the manager of these mines, said a few weeks ago at the annual meeting, "History may repeat itself," &c. It is just possible (and indeed, from what can be seen, very probable) that some extraordinary discoveries will be made in sinking on this already rich lode.

Great Laxey shares have been enquired for at 16½ to 17½, owing to the improvement in the price of lead and considerably enhanced prices for blende, and which is likely to further advance. The half-yearly account just issued, and to be submitted to the meeting of shareholders at Douglas on Wednesday next, is certainly satisfactory, inasmuch as out of the six months the men were on strike for about four months. Instead, however, of the company's interests suffering by the strike they have greatly benefited, owing to being now able to obtain much better prices for the mineral than some four or five months ago.

Mineral Corporation, 11½ to 12½; it is reported that everything at the mines is progressing as usual. They have completed the erection of all the stands and launders from the side of the mountain to the new water-wheel, so that everything is now completed in that department. They have now a large quantity of ore on the banks of the mine ready for treatment, besides some large piles underground all broken and ready to be trammed out as soon as it is wanted. They have also laid open enough ground to put on No. 2 level 30 men stopping on good paying ground. At surface they are completing the engine pool, so as to save all the water from No. 3 adit for the dressing-floors. Mr. Nobels, the French engineer who was recently referred to as having visited this district, continues to write very encouragingly in the French industrial journals as to its value and the way in which the mines are managed.

Frongoch, 1½ to 2½; very satisfactory accounts continue to be received from the manager. Grogwinion, 2½ to 3; no fresh news of importance, and all reported to be going on well. Caron, 2 to 2½; good progress continues to be made in all departments. A further sale of lead will be got ready shortly. Red Rock, 1½ to 2; the mine is opening out better than usual, and prospects have much improved. Wye Valley, ½ to 1; these shares have been offered for sale. No fresh news from the mine. West Wye Valley, ½ to 1; these shares have also been offered at a decline. Crosswood, 1 to 1½; Mawston, 1½ to 2; Hartington, 1½ to 2.

Gwynnynydd, 4 to 4½; an important discovery "has been made in the bottom of the Fron Fawng mine, now the property of this company, by a fall of debris yielding several tons of lead ore, and it looks like leading to an important discovery in the lower flat measures. The drivings in the upper flat are progressing satisfactorily."

Pateley Bridge, ½ to 1½; the Rake vein, in the 40 west, is worth fully 3 tons

per fathom, and improving. In the same level east the lode is worth 2 tons per fathom, and favourable for improvement. The vein in the 30 is presenting an appearance highly promising for an immediate improvement. Other parts of the mine are unchanged.

The subjoined is the list of the closing quotations:—
Ashton, ¼ to ½; Devon Great Consols, 3½ to 4; East Caradon, ¾ to 1½; East Van, 1½ to 2½; Gwynnynydd, 4 to 4½; Great Laxey, 16 to 17; Leadhills, 2½ to 2¾; Marke Valley, ½ to ¾; Pateley Bridge, ½ to ¾; Roman Gravels, 8 to 8½; Tankerville, 3½ to 4; Tincroft, 9½ to 11½; Van, 16 to 17; West Ashton, ¼ to ½; West Basset, 5 to 7; West Chiverton, 2 to 3; Wheel Crebor, 5½ to ¾; Wheel Grenville, 5 to 5½; Almada and Tinto, ¾ to ¾; Birdseye, ¾ to ¾; Blue Tent, 2 to 2½; Canada Gold, 2 to 2½; Cape Copper, 28 to 29; Chonales, ¾ to ¾; Colorado United, 1½ to 1½; Don Pedro, ¾ to ¾; Eberhardt and Aurora, 1½ to 2; Exchequer, 1½ to 2½; Flagstaff, ¾ to ¾; Frontino and Bolivia, 2 to 2½; Hultafall, 1½ to 2; Kapanga, ¾ to ¾; New Quebrada, 2½ to 2¾; Nouveau Monde, ¾ to ¾; Oregon (preference), 2 to 2½; Pestarena, ¾ to ¾; Placerville, 2½ to 2¾; Plumas Eureka, 2½ to 3; Port Phillip, 1½ to 2; Richmond Consolidated, ¾ to ¾; Ruby and Dunderberg, 2½ to 2¾; St. John del Rey, 270 to 280; Sierra Buttes, 1½ to 2½; United Mexican, 3 to 3½.

At Redruth Ticking, on Thursday, 1168 tons of copper ore were sold, realising 4585½ 17s. 6d. The particulars of the sale were—Average standard, 88½ 9s.; average produce, 7½; average price per ton, 37. 18s. 6d.; quantity of fine copper, 88 tons 3 cwt. The following are the particulars:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
Sept. 4...	1230	83 3 0	7½	43 11 0	9s. 6d.	247 8 0
Sept. 18...	2064	89 9 0	8½	3 4 0	9 6	47 8 0
Oct. 2...	1168	86 9 0	7½	3 18 6	10 5	52 0 6

Compared with the last sale the advance has been in the standard 37. 8s., and in the price per ton of ore about 5s. 1d.

CORNISH MINE SHARE MARKET.—Mr. JOHN CARTER, Camborne (Oct. 2) writes—Tin shares continue to advance. Shares are becoming scarce, and much higher prices are asked and paid since the rise of 2s. on the Tin Standards was announced. Carn Breas have advanced to 37, buyers. A large business has been done in Dolcoaths at from 33 to 34; since which the price has advanced to 35, 36. West Setons advanced to 32, West Basset to 6, and West Frances to 7, buyers, on a discovery of a rich branch of tin on the flat lode recently cut in the 132 cross-cut. Peevors advanced to 13, buyers, and East Pools to 15. Annexed are the closing quotations at Four o'clock—Botalack, 30 to 40; Carn Breas, 37 to 38; Cook's Kitchen, 2½ to 2¾; Dolcoaths, 35 to 36; East Caradon, 1 to 1½; East Lovell, 3 to 3½; East Pool, 15 to 15½; Herodfoot, 2 to 2½; Marke Valley, 12s. 6d. to 17s. 6d.; Mellancar, 3 to 3½; New Cook's Kitchen, 1 to 1½; North Bury, 2½ to 2¾; South Condurrow, 12 to 12½; South Frances, 8½ to 8¾; South Caradon, 50 to 52½; South Croft, 21 to 22; Tincroft, 10½ to 11½; West Basset, 6 to 6½; West Frances, 7 to 7½; West Peevor, 3½ to 4; West Seton, 32 to 34; West Tolgus, 27 to 28; Wheel Agar, 3 to 3½; Wheel Basset, 2 to 2½; Wheel Grenville, 4½ to 5½; Wheel Jane, 3 to 3½; Wheel Kitty, 10s. to 15s.; Wheel Peevor, 13 to 13½; Wheel Uny, 1 to 1½; Wheel Owles, 25 to 35.

* With this week's Journal a SUPPLEMENTAL SHEET is given, which contains—Original Correspondence: Copper Mines on Lake Superior; Nova Scotia; Slavery in the Mines of the St. Joao del Rey Company (W. Morris); Trial of Safety-Lamps at Wigan (J. Ashworth); Rustless Iron (J. E. Spencer); the Iron and Steel Institute in Session at Liverpool (W. J. Thompson); Hand-Power Diamond Drill; the Science of Mining (Robert Knapp); Copper Ore Ticketings; Treatment of Tin Ores (R. Southey, G. Green); Cakemore, Causeway Green, and Lower Holt United Brickworks Colliery Company (A. W. Snelling); Good News for Newton St. Cyres (E. T. May); Mines of Great Prussia (R. Symons); Lead, and Lead Mining—No. V.; Is it Right to Pay Purchase-Money for Mines (R. Symons); Marke Valley Mine; Mining in the Llanarnon District; Great Laxey Mine; Cambrian Mining Company—Meetings of Roman Gravels, East Chiverton, West Chiverton, Wheel Jane, and Javali Mining Companies, &c.

LEAD MINES—LEAD MARKET.—At the Roman Gravels shareholders half-yearly meeting held this week, particulars of which are given in another column, some important observations were made by Mr. Peter Watson on the Lead Trade, which, as the Chairman properly remarked, were "very exhaustive and instructive." Especial attention should be given to them by all interested in the leading lead mines as of cheering importance to the future of both the lead trade and lead mines. There can be no doubt that Mr. Watson dives deeply into all these matters, both at home and abroad, in collecting valuable information, and is always most willing to impart it for the good of mining and shareholders interested therein.

TIN STANDARDS.—Tin miners and holders of shares in Cornish tin mines are in high spirits with regard to the prospects of the tin trade, in consequence of the smelters having again advanced the tin standards on Wednesday 2½ per ton. The standards at present are 68½ for common, 69½ for superior common, and so on for the higher qualities.

HERODFOOT.—This mine sold on the last instant 50 tons of lead ore, which realised 537½. Another sampling will take place in about a month. The mine has improved in two of the stopes in the back of the 205 ft. level. In one of the stopes there is a branch of solid lead 5 to 7 inches wide for 4 fathoms in length, and the other stope is worth 20 cwt. of lead per fathom.

COMBARTIN.—The prospects are still very encouraging. There is very rich silver-lead ore in the lode in the bottom of the winze sinking below the adit level, and it is expected that the main lode, which has all along been the adventurers' object in driving the adit level, will be intersected in about 5 or 6 fms. further driving. The mine may be looked upon as an exceedingly promising speculation, and is likely to attract some attention shortly. The ore has always been of a highly argentiferous character, some of it having produced 1200 ozs. of silver to the ton.

PEN-YR-ORSEDD.—The prospectus of this company has been issued, and can be obtained at the offices of the company, 30, Great St. Helen's. The shares are being taken up privately. The Halkyn drainage tunnel is now within a few feet of the expected cross vein, which when intersected will release the water from Pen-yr-Osedd, and enable its rich courses of ore to be developed; on the whole, a brilliant future must be predicted for the mine—large returns at small cost. By those best calculated to judge the highest expectations are raised, the property not being considered in the light of speculative.

BEDFORD UNITED.—A steady demand is springing up for these shares, as much upon the merits of the mine as upon the advance in the price of copper. The position of the mine is improved, by the fact that the recent call will clear off all liabilities. The report shows that the stopes and ends continue equally productive, and that the sampling has increased. The ore being well dressed will doubtless realise a good price, and it is expected will soon more than pay the month's expenditure.

MARK VALLEY continues to sell about 250 tons of copper every month, and has paid its expenses during the past twelve months, notwithstanding the extraordinary low price of copper. At the last meeting, in July, all costs were charged close up, and there was a balance in hand of 1000. If copper should continue to rise we may soon see this old mine re-enter the Dividend List. The present price of 15s. per share scarcely represents more than the value of the machinery. Many ends are being driven into the new ground, and any discovery would materially add to the value of the mine.

COED MAWR AND FRIDD MINES.—Some satisfactory advantages have been achieved by this company during the past few months not only by the opening up of new ground and fresh discoveries of ore being made, but in doing this it was found that some of the lodes which bid fair to become very rich were running into a piece of ground not in possession of the company; they thereupon interested themselves to secure this piece of ground, and after a great deal of trouble have succeeded in getting it added to the sett. They have now a much larger area at the same dead rent as originally paid. This cannot fail but to add greatly to the value of the property. In addition to this, the company have secured new tack-notes or leases, which will give them about seven years longer tenure. It will thus be seen by this that the advantages gained by the little delay will result in great benefit to the new company. It is also pleasing to see that the mine continues to open out well, with every prospect of becoming a lasting dividend-paying property. Several new discoveries have been made, and another parcel of ore sold within the last fortnight. Some large courses of ore have been laid open in the various levels, and the deepest level in which a rib of solid lead was discovered, averaging over 22 in. in thickness, is being pushed on in new ground. Altogether the prospects of this mine are considered to be exceedingly promising.

J. S. MERRY,
ASSAYER AND ANALYTICAL CHEMIST,
SWANSEA.
SUPPLIES ASSAY OFFICE REQUIREMENTS AND RE-AGENTS.

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PURCHASERS OF
LEAD ASHES, LEAD SLAGS, SULPHATE OF LEAD, HARD LEAD, BRASS SLAGS AND ASHES, COPPER REGULUS, MATTE, SCORIA, TIN ASHES, TERNE ASHES, &c., and MIXED ORES or REFUSE, containing LEAD, COPPER, TIN, or ANTIMONY.

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PURCHASER OF
MANGANESE, ARSENIC, FLUOR-SPAR, WOLFRAM, BLENDE, CALAMINE, CARBONATE and SULPHATE OF BARYTES, ANTIMONY ORE, CHROME ORE, MAGNESITE, EMERY STONE, PUMICE STONE, COHRES AND UMBERS, CHINA CLAY, LEAD ORE FOR POTTERS, TALC, PHOSPHATE OF LIME, &c.

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NICKEL AND COBALT REFINERS,
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THE UNDERSIGNED IS PREPARED TO EXECUTE
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G. E. BEVAN AND CO. (LIMITED),
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have 6 and 8-ton WAGONS TO LET ON MODERATE TERMS.

MACHINE STRAPS FOR SALE.

ONE 6-in. MACHINE LEATHER STRAP, 45½ ft. long. Price £4.
ONE 3 in. ditto ditto 36 ft. long. Price 30s.
Both as good as new for use. No reasonable offer will be refused for the two.
Apply to Mr. FOXWELL, 4, Claremont-crescent, Weston-super-Mare.

DUMPY LEVEL AND PROTRACTOR TO BE SOLD CHEAP.

As good as new, but of no use to present owner.
Apply to ROBERT JAMES and Co., 3, George's Dock Gates, Liverpool.

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TWO MINES, containing, according to analysis, the one 2 and the other 3-25 Per cent. NICKEL and COBALT, TO BE SOLD VERY CHEAP. Both mines are very favourably situated near a town, and good loading place.
The quantity of metal ore is, according to appearance, immeasurably great, and the workings very easy.
For further particulars, apply to Mr. T. C. IGENS, Laurvig, Norway.

WANTED, a SITUATION in the OFFICE of a MINING ENGINEER, by an ex-student of the Royal School of Mines, aged 20, who has passed through the Three Years' Course, and taken the Murchison Medal. Knows something of Surveying and Plan Drawing.
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WANTED, a GENTLEMAN, who can command £5000, to TAKE THE PLACE of a RETIRING PARTNER in a LEAD SMELTING, DESILVERING, and REFINING WORKS, doing a steady and substantial business. No previous knowledge of the business required, but a gentleman who can take charge of the books and attend to the financing preferred, as he can then satisfy himself of the soundness of the business.
Address, WHARTON and Co., Accountants, 34, Lord-street, Liverpool.

TO CAPITALISTS, PROMOTERS, INVESTORS, &c.

A MINING ENGINEER of large experience in the WEST OF ENGLAND is in a position to obtain VALUABLE MINERAL GRANTS for clients on easy terms, and to INTRODUCE PROGRESSIVE PROPERTIES requiring very little additional expenditure to enable considerable returns to be made. With improved trade large profits are certain.
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AN ELIGIBLE OPPORTUNITY is now offered for the SETTLEMENT of an ACTIVE YOUNG GENTLEMAN IN CANADA. He will be enabled to obtain his profession as a Solicitor in five, or if he be a Graduate in three years. Cost of living about £150. In the meantime he will have active work, and obtain a knowledge of the Dominion, which is destined to become one of the most prosperous of the Colonies. Premium, £100 sterling.
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FOR SALE, free on board, Caen or Granville, LARGE QUANTITIES of BARKED MINE PROPS, of exceptional quality; TWICE AS DURABLE as the unbarked MARITIME pine mine props of Bordeaux or Brittany, usually employed in England.
Address, V. DE FAILLY, Bourbebourg par Montain (Manche), France.

FOR SALE, a VALUABLE PROPERTY of about 18 acres in SOUTH WALES, rich in MINERALS, very advantageously situated near several towns, and within a mile of a railway.
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SPAIN AND PORTUGAL.

MR. J. T. JOHNSON, Assoc. Inst. C.E., F.G.S., &c., CIVIL and MINING ENGINEER, late of Chester and South Wales, having joined his Brother, Mr. T. M. JOHNSON, who for the last 13 years has been engaged in Mining in Spain and Portugal, is prepared to INSPECT PROPERTIES and CARRY OUT GENERAL MINING and ENGINEERING WORKS in these countries.
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IMPORTANT TO INVESTORS.

THE ADVERTISER has SECURED a VERY VALUABLE CHINA-CLAY PROPERTY. The clay is of the very best quality; it always commands a ready sale at the very highest market prices. The clay is well known to all large buyers and consumers. There are large kilns, tanks, and micas on the works. South-Western Railway passes in front of kiln. Satisfactory reasons given for late proprietors going out. With a little extra machinery 12,000 tons per annum can be put in the market at a good profit.

WANTED, the assistance of a few capitalists, or a capitalist, to THOROUGHLY WORK THE PROPERTY. Every investigation is courted.
For full particulars, address to "J. E. R.," MINING JOURNAL Office, 25, Fleet-street, London, E.C.

THE YORKSHIRE COLLEGE.

THE SIXTH SESSION begins October 7th, 1879, and ends June 25th, 1880. The attention of CANDIDATES preparing for the EXAMINATIONS FOR MINING CERTIFICATES is specially called to the CLASS FOR INSTRUCTION in the THEORY and PRACTICE OF COAL MINING, MINING ENGINEERING, and COLLIERY MANAGEMENT.
Syllabus of this Course, and the General Prospectus, may be had, post free, from the Registrar of the College, Cookridge-street, Leeds.

Notices to Correspondents.

* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt; it then forms an accumulating useful work of reference.

SULPHITE AND HYPOSULPHITE OF SODIUM.—Could any correspondent inform me how these salts are sold per ton in the English markets, or at what price they could be purchased f.o.b. in London or Newcastle?—TEUMICO.

EXTRACTING COPPER FROM MALACHITE.—The writer is desirous to know where Stromeyer is working his plan of extracting copper from malachite, as mentioned in "Wagner's Chemical Technology," page 201? He would also wish to know that gentleman's address, so as to be able to communicate with him regarding his process?—STRATA.

Received.—"A Shareholder" should attend the meeting of the Derwent Mining Company, on Wednesday, and ascertain for himself the information he requires.—"N.S.R."—"A Shareholder" (Wheat Orebor) recommends his co-proprietors to watch the monthly samplings, as being the best proof of the success of the mine—"B. J." (Isle of Man) takes a different view to the writer of the purport of the letters to which he refers. They are written in the best possible spirit, and without any intention of having the effect "B. J." supposes—"Anti-Slavery" (Rio de Janeiro): Thanks for the Rio News—"W. P."—"A. K."—"J. T. W." (Chester): Both statements came from authorities, and may be considered to represent two views of the subject, the metal merchant and miner.

THE MINING JOURNAL,

Railway and Commercial Gazette.

LONDON, OCTOBER 4, 1879.

STEEL FOR SHIPBUILDING.

No more important and interesting discussion took place at the recent meeting of the Iron and Steel Institute than that relating to steel for shipbuilding. The question indeed may be said to be of national interest taken from whatever point of view it may be, whether as regards the production of mild or other steel, or as being more economical than iron. But the conflict now going on for supremacy between steel and iron in our royal naval yards, as well as in those connected with the mercantile marine, leads to the conclusion that the former must have the victory, and that the days of iron ship-plates are coming to a close, although the transition may not be rapid. Iron, it is well known, is fast superseding other more tender material for several purposes, for we find it being made into window frames, sinks, roofs of buildings, shutters, &c., so that there will be an increasing demand for it at the expense of wood and stone, but it is evident that for ships it also will have to give way to the more durable and lighter metal—steel. The lightness alone of steel is a strong argument in favour of it, for, as the Mayor of Liverpool pointed out, every pound weight saved in the construction of a vessel meant a pound of cargo more stowed away and more freight earned. Therefore, any increase in the cost of steel as compared with iron will be more than made up by the great increase that must take place in the extra room given for cargo. In the navy it means even more, for instead of armour-plates 20 in. thick, the iron back and steel face will probably not be one-half the thickness, so that the heaviest of guns, with larger quantities of munitions of war, and other material, will be carried, and at a much greater speed than is now possible with the heavy iron plating of most of our vessels. With steel, too, greater safety appears to be ensured over iron, for Mr. WEST, of Lloyd's, stated that in a recent collision a steel vessel was doubled up but not fractured, whereas if it had been built of ordinary iron it would have sunk. This certainly favours the idea of Dr. SIEMENS that mild steel was best adapted for shipbuilding, and that hard steel could not be made so suitable for the purpose.

At the meeting at Liverpool there was considerable difference of opinion as to the tests for steel applied by Government and Lloyd's, some of the members considering that they were too high, and that the bending test, for instance, did not in any way indicate the quality of the steel, which it was supposed to do. The President was of opinion, as a manufacturer of iron and steel, that the irregularities that had been found fault with in steel were 50 times greater in iron, and considered the tests too high, and unless they were greatly reduced in a practical direction steel would not be so extensively used in the construction of ships as it would otherwise be. On the other hand, Dr. SIEMENS, so far from diminishing the present tests, would increase their severity, remarking that iron, as a rule, held together even if of poor quality, whilst steel of high quality was almost indestructible, whilst if they left the high point of development a most uncertain metal was obtained. And here we may say that, in the opinion of some of our ablest metallurgists, steel is not produced so uniform as it should be, and that the precise grade found in one instance as exactly what was required could not be reproduced in large quantities; that no actual receipt was kept of the material made, although the same ingredients may have been used approximately, and the physical properties judged of by testing in the crude way during the process of manufacture. We are told that one reason why steel has not been more used for structural purposes was that the metal was of various qualities, and that we did not possess the means, without elaborate testing, of knowing whether the article presented to us was of the required quality. An American authority considers that the difficulty would be solved if the user of steel would analyse not one, but twenty, samples of the steel that was found to meet a particular want, and then base his order on an analysis that should come within the highest and lowest limits of the samples, and by so doing he would get substantially the same metal every time. "It," says Mr. HOLLEY, of Brooklyn, "the steel maker, since he must analyse the many materials that go into his product, imposes the same restrictions on the makers of these materials—in short, if from the ore and coal and limestone up to the finished bar each user buys by analysis, and pays in proportionate uniformity, the production of steel of the most multifarious grades and qualities, each homogeneous and uniform to any extent of production becomes a possible, if not a comparatively easy matter." By such a mode of testing the quality of steel necessary for shipbuilding purposes as required by the Admiralty and Lloyd's could be more simply determined, and in all probability more cheaply produced. The resistance of the metal to the stress applied would, by such means, be much increased, whilst all the plates would be made of one uniform quality, and none of them thrown on one side as not up to the specific standard. As to the latter, that considered by Dr. SIEMENS as necessary, and such as would in all likelihood meet the requirements of the Government and other shipbuilders, is the limiting of the test to 30 tons to the square inch for the breaking strain, with an elongation of 20 per cent. on the 1 in. bar. Mr. WEST, of the Liverpool Underwriters' Registry for Iron Ships, appears to have been of the same opinion as Dr. SIEMENS, that it would be well if the tensile strain could be increased and the ductility somewhat diminished. He found that there was no difficulty in getting steel to stand a strain of from 32 to 35 tons, with an extension of from 15 to 20 per cent., and asked if it would be possible, without any increase in the cost, to produce steel in a tensile strain of 35 or 36 tons. It appears by the analysis we have drawn attention to that by carrying them out at a small cost increased strength would be obtained, and a certain instead of an uncertain material would be ensured, so that there would be little or no loss from any plates being discarded as not up to the required mark. Boiler-plates, we may say, have to stand a heavy strain, nearly equal to what is now required for ships. The tests required by Lloyd's for a pair of boilers made of SIEMENS'S steel, with a reduction of 25 per cent. in weight, were—1. Some of the plates to be taken indiscriminately from the shell and front plates to be subjected to a tensile test, and shown to have an ultimate strength both crosswise and lengthwise of the grain of from 28 to 30 tons per square inch, the limit of elasticity to bear the same proportion as is found in ordinary boiler-plates.—2. A specimen of the rivetted longitudinal to be tested and shown to have a percentage of strength at least equal to 74 per cent. of the solid plates.—3. The tempering test. A showing of every plate used in the construction of the furnace's combustion chambers, and tube-plates to be cut 1½ in. wide, heated

to a low cherry-red, cooled in water, and must then stand bending in press to a curve of which the inner radius is one and a half times of the plate tested.—4. For buckling it is to be shown by actual experiment that the flat plates with the proposed reduction of thickness stayed in the usual manner are as strong in resisting buckling by hydraulic pressure as the ordinary iron plates. All these tests have to be made in the presence of the company's engineer or surveyor, the boilers to be built under his inspection, and when completed tested by hydraulic pressure to twice the working pressure. These tests were undoubtedly most severe, and were carried out in the first instance, but we understand that some of them have been modified; still, it is most important that plates for boilers or ships should be such as to leave nothing to be desired in the shape of tensile strength, and without any defect whatever.

In Sheffield at the present time considerable quantities of steel-plates for boilers are being made, and they are admitted to be more economical than the iron, lasting so much longer, and requiring less fuel for heating. This, too, so far, has been the result with respect to steel-plates for ships, and not so long since Messrs. J. ELDER and Co., on the Clyde, were engaged in making six war vessels for the Admiralty entirely of steel. The makers of such plates may consider that the tests required are too exacting, and calculated to delay the more general adoption of them by our own Government and private shipowners; but we believe there is much yet to be learnt with respect to steel as to its toughness, malleability, elasticity, tempering qualities, softness, hardness, and other qualities required for various purposes. But these will be overcome in time, and the exact quality suitable for certain objects will be made with unfailing accuracy, so that the tests will not be considered as they now are by many as far too severe. That steel is bound to supersede iron in the building of ships appears certain, as being the safest and most economical of the two, and this has been practically shown in the many experiments made, for both the BESSEMER and mild steel of SIEMENS, in endurance and ductility, are far beyond the strength of good wrought-iron. Makers, too, are paying more attention than ever to the production of steel of a superior quality, and are not now overlooking the chemical part of the question, which is so important in increasing the resistance of the metal to defined and severe stresses.

So far, we believe the building of ships with steel has been principally confined to England, the example having been set by our Government, but now that a good start has been effected and vessels for mercantile purposes are being made of the same material, we shall most undoubtedly be followed by the Governments of other countries, so that there is evidently a great future before our makers of steel plates for ships, as well as for other purposes.

THE ROYAL COMMISSION ON MINES.

The result of the labours of the Royal Commission on Mines, specially directed it appears to explosions of gas, and the best means which can be adopted to prevent them, is evidently looked forward to with no little interest by our mining engineers and colliery owners. On all sides there is a disposition to give the best and most reliable information possible, and so far as regards South Yorkshire the most fiery mining district in the kingdom, and where at some eight collieries, all within four miles of each other, upwards of 1000 lives have been lost by some nine explosions, a vast amount of valuable information has been prepared for placing before the Commissioners. Mr. RICHARD CARTER, the president of the Midland Institute of Mining, Civil, and Mechanical Engineers, has also prepared a paper, which will be considered at the meeting on October 8 with respect to the evidence which should be given before the Commission, and which he considers should embrace specially the sudden outbursts of gas which have so frequently taken place in South Yorkshire, the proper testing of safety-lamps before they were given out to the workmen, and the best mode of working the coal. It is proposed that the evidence shall be prepared beforehand, and given with all the weight of the Institute, which in every way is only second to that of the North of England.

Mr. CARTER states that South Yorkshire is unfortunately conspicuous for the generation of gas, not only in quantity but of the most dangerous quality known to coal strata; therefore it seemed to him that there rested on the Institute a special obligation to be prepared, not only in defence of their local interests but in defence of the working interests of the country generally, to give such evidence bearing on the question as they were able to gather by the application of the best energies they could bring to bear on the subject when the time came to submit it to the consideration of the Royal Commission. In the district they had enjoyed special immunity for the last twelve months or two years from explosions; still they had no right to expect that immunity to them except at the instance of very careful management, and the application of still further scientific research than has been exercised in the past to all the operations of their coal workings in the future. As to sudden outbursts of gas, for which South Yorkshire has been so notorious, we find Mr. EMBLETON, the oldest mining engineer in the West Riding, and the first president of the Midland Institute, has collected a great deal of valuable information from the several outbursts which have taken place from time to time at the Stafford Main, the Oaks, Mitchell Main, and Thrybergh Hall Collieries. With regard to these extraordinary phenomena, Mr. EMBLETON says it appeared to him there were two causes which would lead to an outburst of gas. One was the pressure of the coal upon the floor, which was caused by the roof pressing upon the coal in the first instance; the next was that the pressure of the existing gas in the roof and the floor had sufficient power after the former operation had taken place to form an exit for itself. The gas did not come from the goaf, and in none of the outbursts which had been related to the Institute had those discharges of gas had any connection at all with the goaf as a receptacle for gas, but were quite independent of it.

In one case it was plainly shown that the gas came from a fissure in the floor and roof, and not from the goaf. If the gas had been in the goaf at the time a fall in the roof would drive the gas out, and it would be carried away by the ventilating current, and would, probably, be removed away in a few hours. There was no pressure that could be applied to the floor by any fall that could take place that would cause gas which was in the goaf to pass into the floor and come out at the fissure alluded to. The thing was utterly impossible, and could not be—it was not in the nature of the thing at all. We may say that the evidence prepared by Mr. EMBLETON with respect to these extraordinary and dangerous outbursts will be most complete, such as could not be given in any other district, and cannot fail to deeply interest the members of the Royal Commission, who, it may be assumed, know comparatively little of the matter. As to safety-lamps, from some experiments made at Barnsley by Mr. EMBLETON, the result went to show that even a rigid inspection of lamps was of no use, and that they ought to be tested with gas before they were used in the pit. The lamps he brought to be tested were examined, and no one was able to detect or point out any defect, but so soon as the experiments were made the defect was immediately apparent, and if those lamps had been taken down a pit, and had come in contact with gas, there would have been an explosion. The experiments made were both interesting and novel, and pointed out a source of danger that was not thought of by colliery managers, and was, as stated by the President of the Midland Institute, one of the most pertinent and important questions of the day, or that could be brought under the notice of a body of mining engineers. The experiments were made with coal gas and light carburetted hydrogen, and even their novelty was sufficient to arouse the attention of colliery managers to a most important matter, which perhaps stood more immediately in direct connection with the element of danger than any one item of the various details of colliery management. This is another new feature that cannot fail to interest the members of the Royal Commission, for we believe it is the first time that attention has been drawn to it outside the Midland Institute, and there is no telling what connection it has had with some of those terribly fatal explosions that have taken place in different parts of the kingdom. As to the different modes of working coal for ensuring the largest amount of safety, there will, doubtless, be considerable diversity of opinion in different districts; but there is, undoubtedly, a growing feeling in favour of the longwall system,

as not only the safest but the most economical, as the coal is got with less waste than by any other. The contribution of the Midland Institute to the evidence given before the Royal Commission will, therefore, be not only valuable but original, and will be appreciated as such by the mining body in all parts of the kingdom.

THE COPPER TRADE.

During the quarter ending September 30 the quantity of copper ore, the produce of Cornwall and Devonshire, sold at the Cornish Ticketing, was 10,235 tons, which contained 710 tons 7 cwt. of fine copper, and realised 32,774l. 8s., being equal to an average of 3l. 4s. per ton of ore, and 46l. 2s. 10d. per ton of copper in the ore. During the same period the British, colonial, and foreign ores sold at Swansea amounted to 8680 tons, which contained 855 tons 18 cwt. of fine copper, and realised 44,807l. 11s. 6d., being equal to an average of 5l. 0s. 4d. per ton of ore, and 52l. 7s. per ton of copper in the ore. The average produce of the ore sold at the Cornish Ticketings was 6 15-16 per cent., whilst that sold at Swansea gave an average produce of 9½ per cent. From this it will be seen that the aggregate sales by ticket were 18,915 tons of ore, containing 1566 tons 5 cwt. of fine copper, and realising 77,581l. 19s. 6d. The subjoined is a summary of the periodical sales at the Cornish and Swansea Ticketings respectively. The ores sold at the Cornish Ticketings were—

Date.	Standard.	Prod.	Price.	Per unit.	Tons.	Fine cop.	Amount.
July 3...	£87 1 0	7½	£3 10 0	9s. 9½d.	1,300	92 112	£ 4,540 19 0
" 17...	84 18 0	6½	3 1 0	8 11	2,409	184 5	7,321 6 0
" 31...	80 3 0	7½	3 9 6	8 11	1,148	89 1	3,980 2 0
Aug. 21...	86 12 0	6½	2 17 0	8 10	2,084	135 4	5,974 7 0
Sept. 4...	84 3 0	7½	3 11 0	9 6	1,230	92 1	4,361 11 6
" 18...	89 9 0	6½	3 4 0	9 6	2,064	137 4	6,596 2 6
Total for the quarter.....					10,235	710 7	£32,774 8 0
Quarter ending June, 1879.....					10,675	726 16	34,260 16 0
Quarter ending March, 1879.....					10,598	731 16	33,029 12 0
Quarter ending December, 1878.....					12,052	866 17	41,459 8 6
Total for the year.....					43,560	3035 16	£141,524 4 6
Showing a quarterly average of.....					10,890	758 19	35,381 1 2
Corresponding quarter September, 1878.....					11,463	804 8	39,397 11 6

The ores sold at the Swansea Ticketings were—

Date.	Standard.	Prod.	Price.	Per unit.	Tons.	Fine cop.	Amount.
July 8...	£78 17 10	9	£4 17 0	10s. 8d.	1,352	122 11	£ 6,559 8 0
" 22...	75 16 0	10½	5 13 0	10 4	1,449	157 14	8,185 17 6
Aug. 12...	74 9 7½	12	6 2 8	10 3	1,745	209 8	10,713 15 0
Sept. 2...	76 18 3	8½	4 7 7	10 3½	2,179	185 11½	9,546 16 6
" 23...	79 8 4	9½	5 0 3	10 10½	1,955	180 13½	9,801 14 6
Total for the quarter.....					8,680	855 18	£ 44,807 11 6
Quarter ending June 1879.....					4,113	521 6	28,261 6 6
Quarter ending March 1879.....					5,153	559 15	28,634 8 6
Quarter ending December 1878.....					4,808	512 12	26,721 10 0
Total for the year.....					22,759	2,449 11	£128,424 16 6
Showing a quarterly average of.....					5,689	612 8	32,106 4 2
Corresponding quarter September, 1878.....					8,600	702 18	35,166 5 6

THE AMERICAN DEMAND FOR OUR IRON.

Perhaps it may be difficult to imagine that there is any connection between wheat and iron; but in our judgment such a connection exists, notwithstanding. At the present moment our iron trade has received a marked impetus from a brisk American demand, and pig-iron has touched 55s. per ton in consequence in Western Scotland. Well, a very grave and serious question presents itself in connection with this American demand. Has it the elements of stability and permanency? We fancy that we may speak with some hope and confidence on this head. The United States had an abundant harvest in 1878, and they have an equally good one in 1879. Great Britain and Western Europe had a moderate harvest in 1878, and they have a still scantier one in 1879. The result is that a very heavy supply of American wheat will find its way to Europe in 1879-80, and at much more remunerative prices. It does not seem too much to assume that at least 10,000,000 quarters of American wheat will be sent to Western Europe in 1879-80; and it also seems possible that the price realised by JONATHAN upon European markets for his surplus wheat will be 15s. per quarter higher than it was last season. As the cost of production remains just the same, this difference of 7,500,000l. will be so much net addition to the wealth of the United States. Moreover, the calculation must not stop here, as the Americans also send us large quantities of flour and maize. As these will also command a better price this year, we may assume, we fancy, with accuracy and fairness, that the Americans will realise an additional profit of 10,000,000l. in 1879-80 upon the breadstuffs exported by them to Europe.

Well, supposing that this calculation should be substantially realised, are we saying too much when we state our conviction that this additional 10,000,000l. of income or wealth, or whatever you may please to call it, will have some effect upon American business? Certainly, the movement of a vast quantity of wheat, maize, and flour down to the coast must also in itself give a decided impetus to the American railroad interest. It will put American railroad men in good spirits, and we may expect that extensions, duplications, and improvements will be carried on with unrestrained vigour. It is this vigorous extension of the American railroad system which has rallied the spirits of our ironmasters just as the JAY COOKE panic damped them down—to use a metallurgical simile—in September, 1873. Just six years have elapsed since the collapse of the Northern Pacific Railroad made its baneful influence felt upon the English iron trade. Now even the Northern Pacific is moving on again, and so is British metallurgy.

It is satisfactory to note that there is an improvement in the aspect of British metallurgical affairs in the important matter of prices, as well as in that of demand. It is all very well to find a more extended market opened out for our iron, but we want not only to sell, but also to sell it at a profit. Well, when we find Cleveland pig approaching 45s. per ton—and even commanding that price for deliveries during the first three months of next year—we may be tolerably satisfied that a solid improvement has really been established. As compared with the point which prices touched during the most severe period of depression, we are now happily in presence of an advance of 30 or 35 per cent. We trust, however, that the advance will not stop here. In Belgium, France, and the United States the iron markets are all tending upwards; and we hope that, to use a curious French phrase, the rise has not yet said its last word.

THE MINERAL RESOURCES OF VICTORIA.

Reporting upon the mineral production of the year, Mr. W. Collard Smith, the Minister of Mines, remarks that a diminished yield of gold has again to be chronicled in comparison with the returns of former years. The gradual exhaustion of the alluvial deposits in the drifts of the first discovered gold fields continues to be the main cause of the decrease in the annual product. The quantity of alluvial gold obtained in 1878 was less than one-fourth the quantity obtained in 1868. There are now encouraging prospects that the opening up of newly discovered auriferous lodes, and of deep leads in the extensive areas of Silurian country covered with volcanic rocks, will cause a great improvement in the future gold returns. In 1868 there was obtained 1,087,502 ozs. of gold from alluviums and 597,416 ozs. from quartz, whilst in 1878 there was obtained 264,453 ozs. from alluviums and 493,587 from quartz. The decrease, however, of the yield for 1878 as compared with the preceding year is much less than the decrease of 1877 as compared with 1876.

During the year no silver ore was raised, but 160 ozs. of silver have been parted from gold obtained in the St. Arnaud district. To this amount 22,835 ozs. 10 dwts. of silver parted from gold smelted at the mint must be added. The yield, therefore, of silver for the year was 22,995 ozs. 10 dwts. The tin ore and black sand raised during the year amounted to 71 tons 19 cwt., and 11 tons 16 cwt. of tin were obtained from 17 tons of the black sand. According to returns received, 1426 tons of copper ore were raised during the year, and

4457 tons were smelted, from which 500 tons 10 cwt. of regulus were obtained, and there were exported 154 tons 5 cwt. of copper, 567 tons 2 cwt. of regulus, and 49 tons 19 cwt. of ore.

There were raised during the year 2627 tons 16 cwt. of antimony ores, and 200 tons were smelted, from which 80 tons of regulus were obtained; and there were exported 312 tons 10 cwt. of ore, also 113 tons 9 cwt. crude antimony, and 557 tons 3 cwt. of regulus. No lead ore was raised. There were raised 301 tons 3 cwt. of iron ore, which was smelted, and produced 140 tons 2 cwt. 1 qr. of metal. Of gypsum 22 tons were raised during 1878. There was no coal raised. During the year 188 tons 15 cwt. of lignite were raised. And there was also 1740 tons 17 cwt. of flagging quarried.

It appears that during the year one license to search for manganese ore was issued. A specimen of mineral obtained from a quartz reef about three miles from Seaton, Gippisland, proved upon examination to be psilomelane—oxide of manganese. It contained a trace of cobalt. The registrar for the Tarwin subdivision of the Gippsland mining district stated that the lime kilns at Warath Bay were being worked, and that several shipments of lime had been sent for sale in Melbourne. From returns received from the Honourable the Commissioner of Trade and Customs it appears that 513 tons 16 cwt. of lime, the produce of the colony, were exported during the year.

During the year a specimen of mineral obtained at Bulgoback, Gippsland, was forwarded to the department, which upon examination proved to be molybdenite (sulphide of molybdenum). This mineral is said to occur in considerable quantities in Victoria and the neighbouring colonies. A sample of infusorial earth obtained in the colony (locality not defined) was forwarded to the department for examination. It proved to be a dark carbonaceous and impure infusorial earth, and of but little value. The Warden's Clerk at Beechworth reports that during the past year no diamonds or other precious stones have been reported as discovered in the Beechworth division. This is accounted for by the fact that the tin and diamond producing creeks in the district have been abandoned, in consequence of the low price of black sand.

HINGSTON DOWN.—We hear that the London management of this mine has been transferred to the office of Messrs. John Taylor and Sons, but as yet no official notice has been sent to the shareholders.

THE NEW ZEALAND GOLD FIELDS.—The last monthly summary from the New Zealand gold fields is most encouraging—everything appears to have taken a turn for the better, and it is fully expected that from present appearances the authorities will be in a position next month to record a further and more decided improvement. The summary of the gold returns from July 21 to Aug. 15 inclusive shows that 2000 tons and a few pounds of stone was crushed, and yielded 2697 ozs. 7 dwts. of gold, or at the rate of 1 oz. 7 dwts. to the ton.

IMPROVEMENTS IN COLLIERY WINDING GEAR.—A new system of winding gear, known as Koepe's patent, which has already been adopted at many of the collieries in Germany and France, is being introduced at some of the collieries in this country, and Messrs. Nasmyth, Wilson, and Co., of the Bridgewater Foundry, Patricroft, near Manchester, are at present constructing engines and winding apparatus on this principle for the Bestwood Colliery Company, Nottingham. The principal feature in the new system consists in doing away with the ordinary drum and the great weight of rope, which in deep mines is a very great strain upon the engine. In this system the cages are attached, one to each end of the winding rope, which passes over the head-gear pulleys and over a winding pulley, which takes the place of a drum, and a balance rope of the same weight as the winding rope is fixed to the bottom of each of the cages, the balance rope hanging freely in the shaft, and the lower end being allowed to dip into the sump at the bottom. By this method, however deep the shaft, the ropes and cages are always balanced, and the engine in winding up has only to overcome the weight of the coal in the tubs and the friction of the working parts. A steady engine speed is secured, whilst considerably less engine power is required, and the risk of overwinding is very much reduced. The system has answered satisfactorily where it has been tried, and is spoken highly of by mining engineers.

WROUGHT-IRON RAILWAY AXLES.—The first meeting of the Society of Engineers for the Session 1879-80 will be held on Monday, when a paper will be read on "The Strength of Wrought-Iron Railway Axles," by Mr. Thomas Andrews, and of which the following is a synopsis:—Brief historic sketch of the Wootley Ironworks; ancient methods and machinery used in iron making at Wootley; iron v. steel as a material for railway axles; various general tests applied to railway axles; tabulated results of tests applied to wrought-iron axles; comparative merits of the various methods of axle testing; desirability of having one normal standard axle test.

REVIVAL IN THE GLASGOW ENGINEERING TRADE.—The Hyde Park Locomotive Engine Works, Glasgow, have, as reported on Wednesday, just received an order from the Indian Government for the construction of 80 steam locomotive engines with tenders, and an order for Cape Colony for six engines with tenders. These orders will keep the firm, who employ ordinarily over 1000 hands, in full work for the next nine months. During the year they have not employed over 200 men. Messrs. Stephen and Sons, one of the principal shipbuilding firms on the Clyde, have received an order from an Italian house for ten steamships, each of 3000 tons burden. Shipbuilding orders generally are being more freely booked in the west of Scotland. At a meeting of the ironmasters of Lanarkshire and Ayrshire, held in Glasgow on Wednesday, it was agreed to give an advance of 6d. per day in wages, but to allow each firm to use its own discretion as to putting the furnaces lately blown out into blast again.

THE AMERICAN IRON TRADE.—Advices received from New York state that the purchases of English and Scotch pig-iron made during the last three months on American account amount altogether to 1,000,000 tons. The New York pig-iron market still shows a feverish activity.

IMPORTANT DISCOVERY OF IRON ORE IN FURNESS.—The iron ore deposits of Furness have within the past few months been proved to be much more extensive than was previously anticipated. At the Mouzell Mine, at Dalton-in-Furness, which was given up in December, 1877, by the Barrow Hematite Iron and Steel Company, Mr. Clegg, the owner, has discovered, through the energy of his manager, Mr. J. Ashworth, a very extensive basin of rich metal, containing hundreds of thousands of tons of iron ore. This basin has been proved to be at least 70 yards long by 30 or 40 yards wide, and 20 or 30 yards deep, but there are indications which justify the belief that the area of this deposit of metal is even greater than that represented by these figures.

PREVENTION OF CHEQUE FRAUDS.—An ingenious and effective method of preventing cheque frauds has been invented by Mr. JOHN LEWIS, of Waterloo Chambers, Birmingham; it consists in fixing a limit upon the amount for which a cheque can be drawn, without necessitating the inconvenience of separate cheque books. The ordinary cheque is engraved upon paper bearing both on the face of it and in the water mark the lowest limit—"under 30s." for example—and between the cheque and the counterfoil proper there is a series of vertical strips, also enlaid and watermarked, with higher limits, as "under 50s.," "under 100s.," and "unlimited." It will be readily understood that when a cheque is drawn for (say) 29s. it will be torn off so as to carry the lowest limit only; if the amount be 49s. the cheque must be so torn as to include the "under 50s." strip, and so on for other amounts. As there are several rows of perforations between the cheque and the counterfoil any number of the limit strips can be readily detached either from the cheque or the counterfoil. There is also a diagonal line of perforations at the upper corner, the removal of which is considered equivalent to crossing, but the inventor suggests that this mutilation may or may not be used in conjunction with the vertical columns. The new cheque books are engraved of various forms, to suit the requirements of tradesmen, manufacturers, directors of public and other companies, and private gentlemen, and their advantages will certainly be appreciated by a large number of users, whether engaged in business or otherwise. As the frauds upon

banks are usually accomplished by the forger increasing the amount of the cheque, the adoption of Mr. Lewis's invention would be an undoubted protection.

REPORT FROM CORNWALL.

Oct. 2.—For some days the belief has been strengthening that we were on the eve of another advance in the tin standard, as indicated by us last week. Day by day not only has the metal market shown signs of hardening, more or less definite, but the share market, which as a rule may be said to follow in the wake of the metal, has been to some extent running ahead. All this is very encouraging; and not less so in regard of individual concerns are the important discoveries which are being reported weekly from so many of the leading and not a few of the prospective mines. Take them all round we very much question whether there ever was a time when our mines looked better than they now do, and whether the prospects were more substantial for a course of continued and steady, if not, perhaps, exciting prosperity. But excitement is just what we do not want, for it always means depression as a concomitant. October opens well, but we believe it will close much better.

Perhaps one of the most remarkable features of our present improved prospects is the way in which all interests in connection with mining seem to be affected; and the singular fact that the reports of discoveries come to us alike from every part of the district, and from every class of mines. Devon mining, which has had little to cheer it of late, has the great discovery at Wheal Crebor and the equally remarkable one of the silver-lead lode at Greystone. In Cornwall we have South Crofty, and West Tolgus and Wheal Peevor, and New Violet Seton and West Basset, while East Wheal Lovell seems coming to the front again. Dolcoath bottom levels are richer than ever, and Tincroft and Carn Brea, and East Pool appear in the same happy position. It is not only very remarkable but very hopeful that when the depression seemed at its deepest the developments and discoveries which these names only partially recall and indicate. It shows that after thousands of years of operation there is really no essential abatement in our mineral wealth; that in some of our best worked areas it is apparently greater than ever, and that in our wide reaches of ground yet virgin or only "scratched" at surface there is the means of prosperity for hundreds of years more. It shows, moreover, the wholly unreal character of the bugbear feared by so many that as our mines increased in depth they would have to be abandoned. We can very well put up with a little extra cost in working if we are to be rewarded with such increased riches as Dolcoath reveals. And we take it that in this matter, as in so many others, the history of Dolcoath is really typical.

The Miners Association of Cornwall and Devon has made arrangements of an excellent character in connection with the programme of the City and Guilds of London Institute for the Advancement of Technical Education. This association will include in its programme for 1880 both blow-pipe analysis, and mine surveying; and classes for systematic instruction in these subjects are to be formed immediately in connection with the Miners Association. The mining examination will be held in May or June next at Camborne, and that in blow-pipe analysis at Truro and several other local centres. The great value of the work of the City of London Institute is that its examinations are practical as well as theoretical, the candidate being expected not only to answer a paper of questions but to perform an assay, or make a survey, as the case may be.

We may expect a good deal of interesting matter in connection with several of the more important mine meetings which are so close at hand. Dolcoath and East Pool are two of the most noteworthy in this relation, and it is said several important points will be raised.

REPORT FROM NORTH WALES, SALOP, AND CARDIGAN.

Oct. 1.—I am glad to record that the improvement in the Slate Trade of North Wales becomes more decided, and promises to be permanent. Capt. Oakley who, as owner of the property, recently assumed possession of some of the largest quarries in the Festiniog district, writes to his friends in Warwickshire, where he is Master of the Atherton hounds—"I am glad to see strong symptoms of improvement in my own trade as a slate quarry owner. The orders from abroad are now better than they have been for the last twelve months." At Rhiwbach Quarry, belonging to the Festiniog Slate Company, more men are employed than have been for a long time past, and at the South Dorothea Quarry, in Nantlle, Carnarvonshire, there are more orders on hand than can be supplied. A discussion relative to the safety of the Penrhyn Slate Quarry has been waging in the Liverpool Mercury between a Dr. Roberts, of Penryn, and Mr. W. J. Parry, secretary of the Slate Quarrymen's Union. It is stated that a great fall of rock is anticipated. If there is the least fear of this the matter should be seen by the owner. I have several times referred in these reports to the very high prices paid to paving sett makers at the Welsh stone quarries. A case lately came under my own notice where the men were making 9s. each per fortnight, and were not working full time. Messrs. Brundrell, of Runcorn, who owned the Gimet Rock Sett Quarry, at Pwllheli, have been looking into the matter, and have during the last seven months reduced the price paid to the workmen by 5s. a ton. Against the last reduction of 2s. per ton the men have struck, and are now idle, but they must submit. The practice which I suggested some time since of taking stout youths as a sort of apprentices has been adopted in some quarries with good results, and if persisted in will soon raise up a sufficient number of good workmen to destroy the monopoly of skill, which has led to such extravagant prices being paid. With reasonable wages to industrious workmen there is great scope in the North Wales sett quarries for the profitable employment of a moderate amount of capital. Two Carnarvon vessels, Miss Beck and Maria Catherine, laden with slates from Bangor to Aberdeen, have had to put into Scotch ports disabled.

The Ruthin and Cerrigydruidion Railway, to which I referred recently, has got into trouble. About 80 of the local shareholders have refused to pay their calls, and county court summons have been issued against them. As a consequence, the money has not been forthcoming to pay the men, who have struck work. About three miles of the line have been cut, but the works are now idle.

The challenge made by Mr. David Davies, M.P., to contribute 15,000l. towards making a narrow-gauge line between Aberystwith and Aberhonddu, in Cardiganshire, on condition that another 15,000l. be subscribed by the people of the district, has been met. The money has been promised, and we may expect the line to be made. Let us hope that this will be the first of a series of similar lines to be constructed in this county, and which may ultimately link the county town with the outside world. If any readers of the Journal wish to make a ramble beyond railways, I commend them to the wilds of Cardigan. It seems a pity that a slight portion of the immense wealth said to have been made from the minerals of this county has not been spent in useful public works within the county. Its titles in rich English churches. Its endowments, English colleges, and its mineral riches some of the dwellers on English plains.

The Government Inspector, Major Marinda, has examined and approved of the construction of the new steel viaduct which has been erected at Llandulas on the Chester and Holyhead Railway in the place of the stone viaduct which was destroyed by the flood at the beginning of August.

In coal the shipping trade from Birkenhead is more active, but the prices are still unremunerative. The same remark is true of the supplies needed for gasworks. The collieries between Ruabon and Mold are rather more busy, and as a notice of a rise of 6d. per ton has been issued by the Lancashire colliery owners we may naturally expect a corresponding rise before long at the North Wales Collieries.

A discovery of sand of a very pure quality in the millstone grit near Caegwrie is announced with some enthusiasm, as opening out a new trade in the district. I hope it may be so; but I do not forget that many attempts have been made during the last thirty years to utilise the white sandstone beds of the millstone grit for this purpose.

The Government do not hold out the prospect of much relief to the owners of property in Cheshire, whose land is being run away with by the salt runs underground, and which is being pumped up at the brine-pits for the exclusive benefit of the proprietors of the

same. The Home Department recommend the preparation of a scheme locally, which may be embodied in an Act of Parliament for local purposes. A great subsidence of land has recently taken place near Winsford from this cause, and the land has become spoiled. It is, therefore, time that something should be done.

The deep bore-hole of 1300 ft. at Bootle, from which so much has been expected in the way of supplying Liverpool with water, is reported as a comparative failure. The water is very hard. It has a good deal of chlorine, from the infiltration of sea-water, and the quantity yielded is only one-fourth of what was expected. This amount, too, is partly obtained at the expense of the older wells.

MACHINE MINING IN NORTH WALES.—Considerable progress in the application of rock-drilling machinery is now being made in the Minera district, the plant recently started at the Park Company's Mines, at Wrexham, showing an important advance upon that which has been in use at the Minera Mines. At the Minera Mines they have for some time past been using a Darlington compressor with two cylinders, each of 9 in. diameter and 30-in. stroke, the whole power of which has been employed for working the two Darlington drills. At the Park Mines they are using an old compressor with ordinary valves, and one cylinder 9 in. in diameter, and only 14 in. stroke; yet this is found ample for running two Schram drills; but this is not all. At the Minera Mines they employ from 50 to 60 lbs. pressure of steam, 50 lbs. being the minimum at which they can work, whilst at the Park Mines the pressure used need only be 28 to 30 lbs., the difference representing a very important saving, even if no larger quantity of work be got through at the Park Mines. With regard to progress, however, the latter mines seem to have decidedly the advantage. Previous to the introduction of the drills the progress made was 5 yards per month; the Schram drills made 6 yards 1 ft. during the first week. The saving in cost per yard driven has exceeded 20 per cent., in addition to contractor's profits. It appears that for driving the levels by hand labour the manager was paying 3s. 15s. per yard; and, being determined to be on the safe side, he declined to give a definite order for the drills unless the seller would undertake a fair contract at a price which would show a good profit upon hand labour. The price was ultimately fixed at 3s. per yard, 10 yards to be driven. There was some effort to get better terms, the contractor pointing out that upon first starting new machinery there were necessarily many obstacles and delays which would not occur when the men were accustomed to their use. The manager being firm, the bargain was taken at 3s., and even with the disadvantages mentioned the 10 yards were satisfactorily driven, and it is believed that a fair percentage of profit remained for the contractor. It may be hoped the time is not far distant when the use of rock-drills throughout the mines of North Wales will be universal.

TRADE OF THE TYNE AND WEAR.

Oct. 1.—The firmness in the tone of the Iron Trade, and increased rates for pig, and to a less extent manufactured iron, has had a good effect on trade generally. Whether the increase in the demand for iron will be maintained or not is a question much discussed, and it must be confessed that many experienced men here entertain doubts on the subject; they fear that it will prove to be only one of those spurts which has occurred so often of late. Much will depend on the demand from America and other quarters. It is clear that the demand must continue to increase to a very considerable extent to bring about anything like really prosperous times, as there are a large number of furnaces, mills, and collieries at present idle. The increase in the iron trade has already caused the blowing-in of several furnaces, and it has also caused an increased output of iron ore in Cleveland. The demand for coal and coke has also caused the re-opening of several collieries, and others will shortly be brought into operation if the trade continues to improve. With respect to the iron trade, the increased exports are certainly very important at present, and if the demand continues renewed prosperity must follow. The shipments of iron last week from Middlesbrough amounted to 31,160 tons. This total includes large shipments on American and Canadian account. It is expected that before the end of the month they will reach 100,000 tons, which is within 46,000 tons of the shipments for the half-year ending February, and is fully one-half that for the year ending August last. There can be no longer any doubt that the demand for iron is steadily increasing. The large demands for America are the most important factors in the increased exports, and the fact of the Baltic exports being, as usual, at this time of the year in excess of the ordinary quantity also accounts for the wonderful increase alluded to.

The Northumberland collieries have, on the whole, been kept well going, most of the best works are indeed fully employed, but some of the second-class works have had some little idle time. There is, however, no perceptible slackness setting in as yet, and the continued arrival of vessels at ports along the coast are keeping the orders firm for coal at the various collieries. As the shipments to the Baltic ports will shortly close, it is expected that even a greater rush of orders will follow during the current week. There is little change to note in the working of the Durham collieries. The demand for coke, consequent on the improvement of iron, is however apparent, and the demand for house coal also increases, although slowly; small coals and manufacturing coals have also improved a little. Most of the best gas coal works are well employed. The coal traffic has been commenced upon the new through line of the North-Eastern Railway over the Wear at Sunderland, the coals being brought from collieries south of the Wear to Tyne Dock. It is understood that the contracts which have been made recently for gas coals for next year's delivery have been in some instances at a slight improvement upon recent rates, and it is expected that there will be an advance of 1s. per ton on best and 6d. per ton on second-class house coals in the early part of October.

The output at the largest Durham collieries is very great in some instances at present. At Ryhope it has reached lately in some days nearly 3000 tons per day, at Silksworth nearly 2000 tons, and at Monkwearmouth the output daily exceeds 2000 tons. So that the yearly output of those collieries will range from 500,000 tons to 800,000 tons, quite as much as was worked from half-a-dozen collieries in the old times. These quantities produced from one central work must of course tend to cheapen the cost of the output. Of course a large number of hewers must be employed to get those quantities of coal, and the workings are of course very extensive, extending in some cases to a distance of four miles in a direct line from the shafts. The coal is generally drawn out by means of powerful hauling-engines and tail ropes. The working in many instances is now by the longwall system, and the system appears to be gradually superseding the old plan of bord and pillar in many of the seams, more especially in the Mauden and other seams, where bands of shale divide the coal. The plate and rolling mills at Consett, Jarrow, and other places have again been started, the men going on at the reduction made by the award of Mr. Dale under protest.

There was a large attendance on 'Change at Middlesbrough, and the market was in an excited condition. It was found that Messrs. Connal and Co., of the Middlesbrough and Glasgow warrant stores, had a stock of 83,700 tons of Cleveland pig, and had orders to send out a few hundred tons. The deliveries into store have slackened. At Glasgow their stock last night was 314,550 tons, and it was reported that they were receiving from 1000 to 1100 tons per day. It was soon found to-day that No. 3 Cleveland pig could not be bought for less than 44s. per ton for immediate delivery. For delivery next year orders have been booked at 45s. per ton No. 3. This increased demand is chiefly on American and on Scotch account. Shipments at Middlesbrough are very active, and so much have they increased that a large number of extra men have been put on at the docks to assist in loading vessels. While there is a legitimate basis of improvement in the iron trade, there is undoubtedly a good deal of speculation going on, and it is very questionable whether the present rates can be maintained. The most experienced people in the trade are afraid to commit themselves to a dogmatic opinion, and are content by saying that the sudden rise is unexpected, and that if it is maintained for a few weeks good trade throughout the country must follow. In the finished iron trade there is a corresponding advance in prices. Engineers and ship-

builders are not busy; the factories are getting thin, and the shipyards are now very bare, but there is a general belief that times are mending, and shipbuilders are sanguine that if they can get their wages difficulties settled on Teeside they may feel justified in keeping their establishments going by building vessels on speculation. Should the price of pig-iron at Middlesbrough be maintained, it is expected that several blast-furnaces now idle will be blown in. Messrs. Bolckow, Vaughan, and Co. have two, Messrs. Samuelson and Co. have two, and Messrs. Bell Brothers have two furnaces which might soon be blown in. There is rather more doing at the Cleveland ironstone mines, and the cheering reports of the early future have checked the tide of emigration. There is a better enquiry for all kinds of fuel and limestone, and prices are stiffer. From the various centres there are more cheerful accounts.

The North of England Institute of Mining and Mechanical Engineers general meeting will be held on Saturday, to-day. The following papers will be read:—Notes on Coal Dust Explosions, abstracted from the Annales des Mines; a review of the paper read before this institute by Messrs. A. Freire-Marreco and D. P. Morrison, by M. Louis Dombre; On Boiler Accidents, and their Prevention, Part II., by D. P. Morrison; Analysis of Nova Scotia Pit Waters, by Mr. Edwin Gilpin.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Oct. 2.—The coal trade is putting on a decidedly more active air, the owners of manufacturing and house coal pits alike being busier. Buyers are eager to secure forward supplies, but as they do not offer an advance on present prices masters firmly decline to enter into contracts. What course the Earl of Dudley's agent is likely to take in view of next week's quarterly meeting is actively canvassed. On the exchanges this week rumour had it that the existing quotation for furnace fuel (8s.) will not improbably be found at that date to have been advanced to 10s., but there was no confirmation of the report. It was considered unlikely that Mr. E. Fisher Smith would pursue this line of action, notwithstanding the solicitations of the colliers; and some masters declared they should be unprepared to follow such a lead, fearing to check the present improvement. Pig-iron makers have the market pretty much in their own hands. They will not accede to consumers' terms for even limited forward delivery, and this is especially so as to high quality hematite and clay band irons, which are in great demand by the steelmakers and the tin-plate people: 3l. 7s. 6d., which is an advance on late prices of 10s., was demanded by agents of houses producing these descriptions. Native best pigs are strong at 3l. 5s. and 4l. 5s. Finished iron makers are wanting specifications, and certain sheet firms who have secured large contracts are in consequence running short time.

At the close of the Birmingham Change this afternoon the market was showing indications of less excitement. Local pig makers were offering to book at old prices in small lots, but without much success, and buyers of foreign pigs were less anxious to purchase; nevertheless, for special samples of hematites 5s. more than yesterday's price was demanded, but not given. Finished iron generally closed very quiet, but best thin sheets and tin-plates were dearer.

The South Staffordshire Mines Drainage Commissioners have been fortunate in securing, as they did at their annual meeting in Wolverhampton yesterday, a continuation of the services of Mr. Walter Williams as chairman for the ensuing year. The balance-sheet presented at the same meeting, dealing as it did with a total of no less than 243,135l., made it clear that much care would still be wanted in conducting the affairs of the commission. The reports upon the surface and mines drainage operations compiled by the engineers were generally satisfactory as to the work which the commission is doing.

It is not a source of gratification to the shareholders in the Cannock and Huntington Colliery Company to learn this week that some of the tubs that recently sank to the bottom of the shaft are fractured. At the same time others are found to be sound. More than half a dozen tubs have been already brought to the surface.

In sympathy with the improvement in South Staffordshire, the trade of North Staffordshire is showing signs of revival. Some good shipping orders are to hand, and the price of pig iron has gone up several shillings per ton. The Goldendale Iron Company, near Stoke-on-Trent, have re-started their two blast-furnaces which have been idle. At Chatterley a furnace is being repaired, and is expected to start shortly.

A liquidation petition has been filed in the Birmingham County Court, before Mr. Registrar Cole, by Samuel Clement Trapp, Gregory Alcock, and Guy Wood, of Polesworth, in the county of Warwick, colliery proprietors, carrying on business at the Pooley Hall Colliery. The liabilities are estimated at 20,000l., and assets not yet ascertained. Upon the application of Messrs. Wragge, Evans, Holliday, and Co., of Bennett's Hill, solicitors for the debtors, the Registrar appointed Mr. Charles A. Harrison, of Waterloo-street, public accountant, receiver and manager of the estate. Negotiations have been going on for the sale of the colliery, but the continued depression in trade and the unremunerative prices which had prevailed, have brought about the collapse. It is hoped that arrangements will be made for continuing the colliery.

NORTH STAFFORDSHIRE IRON AND COAL TRADES.—A quarterly meeting of the North Staffordshire Iron and Coalmasters' Association was held on Thursday at Hanley—Mr. Wragge in the chair. The reports presented showed that the improvement in the Scotch iron market had influenced North Staffordshire to a very moderate extent at present, but the prices of pig-iron were certainly firmer. A good demand for finished iron for the United States was stated to exist, but the home trade continued dull, and on the whole the impetus had not as yet enabled any substantial advance in prices to be realised. Rather firmer quotations were made for ironstone, in some cases an advance of 1s. per ton being obtained. Prices of coal were unaltered, and there was no prospect of a rise, the production being still in excess of the requirements of the district. There were not many actual transactions at the meeting, these being generally postponed to the Quarterly Meeting at Birmingham.

IMPROVEMENTS IN PUDDLING FURNACES.—At the South Staffordshire Mill and Forge Managers' Association meeting Mr. Rigby read a paper on Suggested Improvements in the Construction of Double Puddling Furnaces and Air Furnaces. The writer advised that as far as possible every facility of a single furnace should be embodied in a double furnace; and in a model of a double furnace that he showed Mr. Rigby pointed out he had constructed a grate and a flue, and also a damper on each side of the furnace. By this each of the two puddlers was made independent of the other in the matter of firing and otherwise regulating his operations. In building either a double puddling or an air furnace it was recommended that the furnace should be shorter, and in proportion wider, than the ordinary ones; and, further, that there should be a dip down the middle of the crown, which would make the roof on each side resemble the crown of a single furnace. This dip would in some measure divide the flames, and effect another feature of the single furnace—throw the flame towards the doors, whilst the blank walls between the two flues would cause the flame to rebound, filling up the flue end of the furnace, and preventing the iron from being cut or oxidised. This construction of a furnace would, Mr. Rigby said, cause the heat to be concentrated, and a saving of fuel would be effected. A double furnace of this description should be arranged with two grates, each 3 ft. by 3 ft., the body being 5 ft. 6 in. from one bridge to the other, and 8 ft. 6 in. from one breast-plate to the other, inside dimensions. The two flues over the flue bridges should be 1 ft. 3 in. wide by 9 in. high. This would give a total area of 276 square inches. In the discussion which followed the reading of the paper there was a general concurrence of opinion that the method Mr. Rigby had adopted in the construction of the double furnace was a step in the right direction. Two chimneys, it was thought, would be requisite to obtain the necessary draught. It was thought that if one of the two grates was smaller than the other it would be a means of economising fuel without decreasing the efficacy of the furnace, and that the length of the furnaces as at present used was too great. An advantage of the double furnace was the reduction of the area to be heated by the lowering of the crown. There were, however, two drawbacks, and they had militated against the general use of a double furnace. They were

the unfairness of the two puddlers in trying to steal one another's iron, and the extraordinary width which created the difficulty of keeping the lining on the bottom. The question of the amicable working of the two puddlers could be met, the members thought, by the employing of two men who were of one family, or were otherwise mutually interested. If a weak iron was used the puddling in this class of furnace formed, it was pointed out, a better flux. At the same meeting the Casson double gas-puddling furnace, as used at the Round Oak Works of the Earl of Dudley, was referred to, and figures were adduced showing the result of working to be satisfactory. After 22 tons 13 cwt. of raw iron had been put into the furnace and the finished iron rails rolled off the percentage of actual waste was found to be only 5.93 per cent., and the consumption of slack 4 tons 12 cwt.

—Wolverhampton Chronicle.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

Oct. 2.—There has not been much change in the state of affairs in Derbyshire since my last notice, but so far as trade is concerned it has not been for the worse. Iron appears to be improving, and from the meeting of the shareholders of the Staveley Company the year has not been so bad as many were led to believe, for the trading shows a considerable profit. The iron productions of the company, it may be said, have a high reputation at home and abroad, and the energetic character of the managing director, Mr. C. Markham, has ensured for the men a larger share of employment during the year than those at other works have had. There has been a large output of pig, whilst the several collieries belonging to the company have been kept well going. The make of Bessemer steel and the rolling of rails continue at Dronfield, from which it was recently said the works were about to be removed, but this has as yet received no confirmation. The business doing in house coal has been very fair, and in all probability will go on increasing, whilst a slight advance in the price may reasonably be looked forward to, but of this as yet there has been no indication. To London of late a considerable tonnage has been sent over the Midland, but prices to consumers remain the same as they have been during the greater part of the summer. In steam coal the demand has not been up to that of some former years, whilst the prices have been exceptionally low and unremunerative. At the Kilburn Colliery, where there was a row a short time since, in consequence of some men working whilst others would not, matters have settled down, and there are now as many men in the pit as are required. In some few instances the wages question has not been quite settled, but there does not appear to be any likelihood of a dispute of a serious nature, although some few of the men are open for a fight, but fortunately they have no following.

In Sheffield business appears to be in much the same state as it has been for several weeks, with perhaps the exception of hematite pigs, and for them the demand has increased to such an extent that makers have been able to go on advancing until they are now something like from 7s. to 8s. per ton more than they were six or seven weeks ago. The result is that stocks that had grown very large have been well toned down, whilst makers are holding back from taking orders for forward delivery. Some heavy armour-plates are being turned out for the Admiralty, and the Government has also given out some good contracts for steel plates, barrels, and gun blocks. For ordinary ship and boiler plates the business doing is but moderate, but some of our boiler makers are taking more steel than previously. There is a large output of Bessemer for various purposes, a considerable quantity being used for cutlery and wire; but, owing to the advance in hematite, the makers have been obliged to advance their quotations from 5s. to 6s. per ton for it. There has been no falling off in the output of the Bessemer rail-mills, and the establishments, as a rule, have as much as they can do. More is also being done in cast-steel, a few orders for exportation having come to hand from America, from which it appears that there they have not yet been able to master the peculiarities of the best Sheffield steel. For general cutlery the demand is quiet, but some of the houses engaged in the making of edge tools and files are decidedly better off. At the foundries business is anything but brisk, the production of stoves, grates, and builders' castings during the whole of the summer having been but moderate. The collieries around Sheffield have been working tolerably well, and the strike at one of them, which has lasted for several weeks, may now be said to have terminated, as many men being at work as are necessary for the quantity of coal required.

At the collieries in the Barnsley, Wombwell, and Wath districts the wages question has been prominently brought forward during the last two or three days, and at several places the men have received notice to leave, the object of course being to have new contracts entered into at reduced rates. This was the case at Wombwell Main, where the men had notice yesterday. At Darfield Main the men on Wednesday morning refused to go down the pit in consequence of the manager having refused to let some of the miners go down the Tuesday afternoon's shift, after the men had held a meeting to discuss certain alleged grievances. At Hoyland Silkstone the notices have been withdrawn, so that work will go on as usual.

On Monday there was a meeting of delegates from the various miners' lodges at Barnsley, when the question of an advance of wages or the limitation of production was discussed. The proposal that notice of an advance should be given on Oct. 10 was agreed to, and in the event of a refusal then the output is to be limited. There is not much to be feared from the threat, the men having nothing to fall back upon, the coffers of the Association being quite dry, could not continue a struggle for many days. However, there is every appearance of a short and decisive struggle before long, and the result as usual will be to leave the men a great deal worse off at the end of it than they were at the commencement.

Some of the colliery owners in South Yorkshire have given their customers new price lists, showing an advance of from 6d. to 1s. per ton, but in the present state of the trade it is doubtful whether they will be able to get it.

REPORT FROM MONMOUTHSHIRE AND SOUTH WALES.

Oct. 2.—Previous allusion has been made to the parliamentary powers granted to the Monmouthshire Railway and Canal Company to close a portion of their canal adjoining the Newport Old Dock. The space thus covered over will be utilised for railway sidings, increased accommodation for the mineral trains which are continually arriving being greatly needed. It is satisfactory to note that a commencement has already been made of these alterations.

A new shipway and gridiron has been constructed at Penarth, and will be in full working order in the course of a month or six weeks.

The miners of the district have held a large meeting. They assembled at Mountain Ash, and debated various matters, one of which was the proposed establishment of a Union for the district: 10,820 men were represented. Out of these 25 were neutral, 4040 were in favour of connecting themselves with the National Union, while the rest—forming the majority—wished to form an independent Union.

The following were appointed to give evidence before the Royal Commission on Mining Accidents:—Messrs. S. Davies, Aberdare; David Morgan, Mountain Ash; Evan Williams, Pontypridd; H. F. Seers, Risca; Joseph Williams, Teorky, and Richard Rees, Llansamlet. With reference to the accidents in Mines Commission, which will visit this district next week, it may be stated that on Monday the commissioners arrive at Newport, on Tuesday they proceed to Abercarn, where Mr. Jordan, engineer to the Ebbw Vale Company, will meet them. Time permitting, they will visit the Newport Abercarn Colliery. Thence they will go to Quaker's Yard, and inspect Harris's Navigation Colliery. On Wednesday and Thursday they will hold a sitting each day at Aberaman House, the residence of Sir George Elliot, whose guests they will be. On Friday and Saturday probably other collieries will be visited.

The inquest with reference to the explosion at the Waun Llwyd Pit, Ebbw Vale, has terminated in the following verdict:—"The explosion was accidentally caused by Thomas Griffiths, the fireman, closing a door in the mine which he had found open, and so sending the gas which had accumulated back to the furnace, the door having been negligently left open on the Saturday night by some person unknown." We recommend the Ebbw Vale Company not to employ

Thomas Griffiths as fireman any further, and also that they comply with the 7th general rule of the Coal Mines Regulation Act by putting up a double door where there is only one now in the west district.

The iron and steel trades of the district may again be quoted as showing some improvement. So far as the quantity turned out and cleared an alteration for the better is decidedly observable, but as yet no material effect has been produced on prices. What is feared is that the present state of things is only temporary. The American demand so far shows no sign of falling off. The demand for Bessemer steel rails is fairly good. The clearances of iron during the past week have been, as usual of late, almost exclusively to the United States; but a shipment has also been made to Brazil, and another to Portugal. Bars appear in rather better request, and pig-iron sells at prices rather more in favour of sellers. It now appears that, although a furnace has been re-lit at Abersychan, it has been counterbalanced by another being blown out. At Briton Ferry several puddling furnaces have been re-lit. Iron ore is arriving in large quantities. The Tin-Plate Trade also shows an improvement; at any rate, prices are firmer, and show an upward tendency. The demand is well kept up. The Morfa Works, Llanelly, have been re-started. The Coal Trade continues to exhibit enhanced activity. Some good orders are in hand, and colliery proprietors still hesitate to accept orders for forward delivery at present rates. There is a fair amount of work doing at the various pits, and more regularity of employment exists. Prices are firmer, and it is hoped they have reached the lowest ebb. Steam coal shipments are very large, the demand being well maintained. House qualities are still fairly active.

The wages dispute at Pentre has now entered upon a new phase. The men, after agreeing to arbitration, have protested against the award of Mr. Gwilym Williams, stipendiary magistrate. A strike has been pending at the Broad oak Colliery, Loughor, for the last month. The men refuse to go in at their former wages or submit to arbitration. The colliery in all probability will be closed if the men continue obstinate.

REPORT FROM THE FOREST OF DEAN.

Oct. 2.—The day following our last report several of the officials of the Great Western Railway Company visited the Whimsey and Mitcheldean Road line, now in course of construction, for the purpose of making an inspection of the works in progress, and considering by what date the line could be completed and opened for traffic. Their inspection and deliberations of course partook very much of a private character, but one outcome was an evidently inspired paragraph which was issued about two days afterwards in a daily paper published in the Principality of Wales, but circulates more or less all through these western parts, to the effect that the Whimsey line would be completed and opened for mineral and passenger traffic at once. The line could be completed (as we remarked in our last) in a few weeks, but as its progress has been at a snail's pace hitherto, we are doubtful about its being completed at once. A few days since we visited the end which remains to be completed, and made such enquiries as we were able as to the date of its probable completion, and was informed that it is to be completed by next New Year's day, or the contractor to be fined so much per day for all delay after that date. The date given us accorded substantially with that given by ourselves in our last report, and should the weather be at all favourable, and the contractor give proof of ordinary energy, we think that about Christmas we may look to hear something definite about the opening.

The Dowlais Iron Company and the railway company's dispute has occasioned some delay, as the Dowlais Company has compelled the railway to raise two bridges considerably, and the embankment leading on from them towards the steam-mill. The Dowlais Iron Company, it is said, offered the railway company 500l. to construct a platform sufficiently commodious for running all its trains of iron ore for transfer to the railway trucks at the point where the rail crosses the tramway, not far from the causeway of the turnpike that runs from Mitcheldean to Coleford, but the railway company would not agree, and, in consequence, the Dowlais Company compelled the railway company to raise the closed with that haulage of any necessary loads of any kind required at Edge Hill Mine could pass under. With our present knowledge of facts we think that the railway company stood in its own light. The accommodation would have been a great boon to the Dowlais Iron Company, as it would considerably shorten the length of the tramway from the mine, and enabled the company to have done almost double haulage, and with greater ease. The coal and iron trades in the district retain or keep up the recently reported improvements, and the same may be said respecting the tin-plate trade. Prices, however, are not much in advance as yet, though we are hoping for yet greater encouragement.

THE WEEK.

SATURDAY, SEPT. 27.—This was Contango day. Railways were expected to be in short supply, but the reverse was shown to be the case. Stock appears to have been bought by weak speculators, who are unwilling or unable to pay, and take their purchase away from the market. For the first time for many accounts past a contango was charged on Berwick. Caledonian and North British, though greatly benefited, were not scarce. "Bulls" of Brighton A. had to pay 3½ contango; this stock touched 11½ at one period of the day. The others mostly closed with a dull tendency, owing to sales made by those who anticipated "backs." The rise in Egyptian made further progress, and does not appear by any means to be exhausted as yet; Unified, Preference, and Daira all closed 1 higher. Erie were a good market, the shares reaching 30, and the Second Mortgage 79. Wheel Crebor shares were offered, and closed no better than 8½ to 9½, being a fall of nearly 1l.

MONDAY.—There was remarkable buoyancy in American Railways, some of the changes being simply marvellous. Each morning we are gravely reminded that Erie shares are mere "counters," "not worth the paper they are written on," &c., and yet misguided people are found to be eager buyers from day to day at enhanced prices. It was pretty well understood here last week that an arrangement had been made between the two New York Leviathans, hitherto rivals, and that prices would be driven up. Many thousands of shares were purchased at between 27 and 28. To-day the opening price was 32, and the closing at 33½, after being much higher. The Second Mortgage advanced 3l. straight away, being equal to 30l. on every five bonds held. In writing a week ago on these stocks the value and importance of dealing in this market was fully commented upon. Atlantic and Great Western First Mortgage, long a sluggish market, improved in sympathy, and advanced 8½. Reading General 1874 were very strong, and advanced as much as 3l. The shares at 21 seem relatively cheap. In the mining market there were one or two noteworthy changes. Difficulties with regard to "continuing" created something like a collapse in Wheal Crebor. Shares were offered at one time at 8½, closing 6½, 7½, or 2l. down. East Vans were in active demand, and rose 1½ to 3.

TUESDAY.—The markets were again in an unwonted state of activity. Almost anything that had been bought last week could be re-sold at a good profit. Caledonian was quoted at 25 (25s. off), and after being dealt in at 31½ went up in the afternoon by "leaps," until 35½ was reached, British closing 1½ higher in sympathy. No railway lost ground on the day, and the following advanced from 1 to 1½:—District, Great Western, and North-Eastern. A week ago, when some Caledonian stock had to be bought in, a price very different from that current for the account had to be paid, and to-day several "bears" were "cornered" cheaply and expeditiously. Erie shares were again good, the rise to-day being 1½, and the last price 34½. Mining shares were active. East Van advanced to 4l., while Richmond receded 1l., to 7½, 8. No signs of recovery were apparent in Wheal Crebor, a further heavy fall ensuing. The last price was not better than 4½ to 5, or 2½ down.

WEDNESDAY.—District and Dover, A. were seized hold of by speculators to-day, and pushed up higher. There is always a scarcity of stock in the former, and in the other prices have been stationary, while Brighton, A. has been improving from 5 to 8 per cent. Neither change, therefore, came as a surprise on the market. Each left off 2½ the better. Erie shares at 4:30 were only 33½, being 1½ down, but in the "street" afterwards, there was some animated buying at as high a price as 35s., a late cable from New York having quoted a rise. Wheal Crebor shares were brought at 4l. Tin shares were much firmer all round, and difficult to get.

THURSDAY.—Unified opened 3½ better, and soon showed a rise of 1, to 50½ on the day, but this was not maintained. The bonds were only continued at 45 at the mid-month settlement. Preference then being no better than 71½, and Daira 55½. Erie shares had a great rush, closing nearly 83 higher. A rise of 3 took place in the Second Mortgage. Home railways left off strong. Berwick advanced 1½. An important recovery set in in Wheal Crebor; shares were at the commencement of business at 4½, but ultimately closed 6 to 6½.

FRIDAY (Opening).—The markets are extremely excited, and buoyant. Sellers have all their own way nearly, and almost exact their own prices. Notwithstanding yesterday's rise of 2 per cent. Berwick are quoted a further 1½ better, and Midland 1½. Dover, A. 1 per cent. higher (111½), and Brighton, A. 1 per cent. also (117½). Erie Second Mortgage Bonds are up as much as 2½ (85½); the shares are 81 better (337½). Reading shares are 22, and Atlantic First Mortgage, 238. Egyptian Unified, 50½ to 50½; Turkish Fives, 11½ to 12½. Mining shares do not display much activity. Wheal Crebor, 5½ to 6½; East Van, 2 to 2½; West Olverton, 2½ to 3; Van, 16 to 17; Tankerville, 3½ to 4; Pandora, ¾ to ¾; Leadhills, 2½ to 2½; Devon Consols, 3 to 3½; Parys Cop. per Corporation, ¾ to ¾. —*Four o'clock.*—Prices have eased down somewhat, and the markets are much quieter. British are now 77½, but have been 78½; Dover, A. Brighton, A. Great Western, and District are all from ¼ to ½ below their best. No weakness or hesitation is shown in American stocks. Erie shares are a further 81 higher, and Reading shares have risen to 223½. Egyptians have become dull; the Unified is now offered at 50½, being a fall of ¼ from the best. Wheal Crebor, 5½ to 5½; Richmond, 8½ to 8½; Panullicio, 2 to 2½; Rio Tinto, 13½; ditto shares, 6 to 8½; Cape Copper, 28 to 29; New Quebrada, 2½ to 3½. Business has been done in Devon Consols at 5½, in South Canadian at 50, and in Wheal Greenville at 5½. —*Four o'clock.*—Extreme depression was shown in Erie just before the close, the shares falling rapidly to 38½, 37, and the Second Mortgage to 83½, 84. Home railways rallied, and closed firm. Caledonians were put up 1 per cent. (96½, 67) just at the finish, as has been the case for two or three days past. Brighton, A. 117½ to 118½. Egyptians closed weak, the Unified being offered at 49½, and Daira at 61½. Parys Copper, 10s. to 10s.; Don Pedro, ¾ to ¾; Chapel House Colliery, 1½ to 2; Newport Abercarn, 4½ to 5½; Cardiff and Swansea, ¾ to 1.

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Are exclusively used, the advance made during eight consecutive weeks, ending February 7, was 24'90, 27'60, 24'80, 26'10, 28'30, 27'10, 28'40, 28'70 metres. Total advance of south heading during January was 121'30 metres, or 133 yards.

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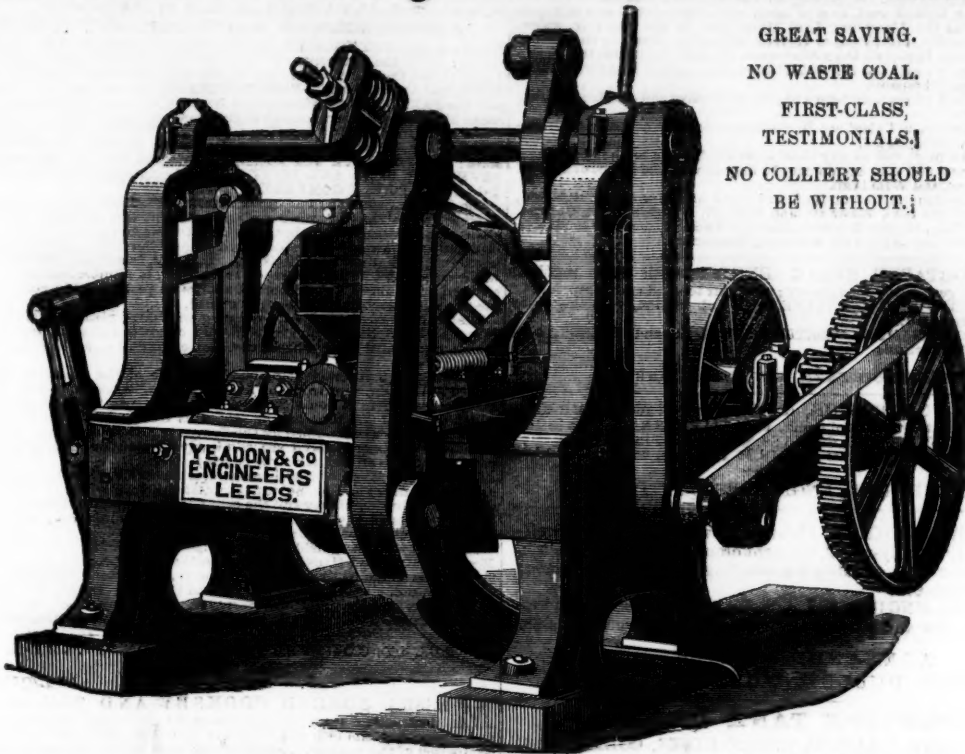
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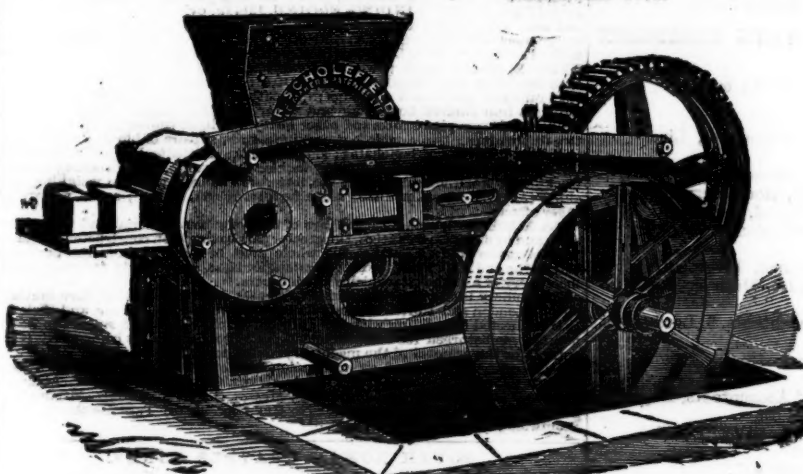
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2 men digging, each 4s. per day	80	0	0
1 man grinding, 4s. 6d. per day	0	4	6
1 boy taking off bricks from machine, and placing them in barrow ready for the kiln, 2s. per day	0	2	0
1 boy greasing, 1s. 6d. per day	0	1	6
1 engine-man, 5s. per day	0	5	0
1 man wheeling bricks from machine to kiln, 4s. per day	0	4	0

Total cost of making 10,000 pressed bricks ... £1 5 0, or 2s. 6d. per 1000.

(SETTING AND BURNING SAME PRICE AS HAND-MADE BRICKS.)

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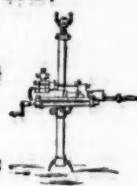
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Shares.	Divid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd.
10000 Caron, <i>l</i> , Cardigan*.....	2 0	0 0	2 2½	0 4	0 0	2 0...Oct.
1000 Carn Brea, <i>c</i> , <i>l</i> , Illogan†§.....	56 7	6 33	40 42½	308	0 1	0...Feb.
10240 Devon Cot. Consols, <i>c</i> , <i>a</i> , Tavistock*†	1 0	0 0	3½	3½ 4	0 116	15 0 0 5 0...Aug.
4296 Dolcoath, <i>c</i> , <i>l</i> , Camborne.....	10 14	10 33	35 37½	113	11 3 0	5 0...July
8400 East Pool, <i>t</i> , <i>c</i> , Illogan.....	0 9	9 14½	15 16	18	3 3 0	8 0...July
40000 Glasg. Car. c. [300000s. £1 pd., 10000	15s. pd.]	3½	3½ 3½	0 13	10 0	0 6...Aug.
8500 Goredsd and Merilyn Con. <i>l</i> , Flint.	2 10	0 0	2 1½ 2½	0 5	0 0	5 0...Aug.
15000 Great Laxey, <i>l</i> , Isle of Man*.....	4 0	0 0	16½	16 17	24	15 0 0 5 0...Apr.
8400 Green Hurth, <i>l</i> , Durham*.....	0 6	0 0	3½ 4½	4½ 4½	0 14	10 0 0 10...Aug.
20000 Grogwinion, <i>l</i> , Cardigan.....	2 0	0 0	3 2½ 3	0 14	10 0	0 10...Feb.
2800 Isle of Man, <i>l</i> , Isle of Man†	25	0 0	—	82	5 0	0 10 0...Feb.
20000 Leadhills, <i>l</i> , Lanarkshire.....	6 0	0 0	2½ 2½ 2½	0 15	0 0	3 0...Mar.
400 Lisburne, <i>l</i> , Cardiganshire.....	18 15	0 35	30 36	597	10	1 0 0...Mar.
10000 Mellanear Copper, Hayle*.....	2 0	0 0	3½ 3½ 3½	0 10	0 0	2 0...Aug.
9000 Miners Mining Co., <i>l</i> , Wrexham*.....	5 0	0 10	9 10	68	3	2 0 1 6...Aug.
20000 Mining Co. of Ireland, <i>c</i> , <i>c</i> , <i>l</i>	7 0	0 0	—	23	17 6	9 2 6...Jan.
1024 North Busy, <i>c</i> , Chacewater.....	1 14	0 0	—	1	0 0	0 5 0...Oct.
11829 North Hendre, <i>l</i> , Wales.....	2 10	0 0	6½ 6½ 6½	3 2	6 0	0 2 0...Sept.
8063 Ditto.....	1 0	0 0	2½ 2½ 2½	4 0	0 0	2 0...Sept.
10000 Pant-y-Mwyn, <i>l</i> , Mold (8794 sh. iss)	2 0	0 0	—	0 3	0 0	2 0...Aug.
8000 Pennant, <i>l</i> , bar, North Wales*.....	5 0	0 5	4 5	10	0 0	2 0...Aug.
15000 Prince Patrick, <i>l</i> , Merthyr Tydfil.....	1 0	0 0	1½ 1½ 1½	0 15	0 0	0 6...July
12800 Ditto, pref. 8000 sh. issued.....	0 10	0 10	1 1½	0 1	6 0	0 6...July
10000 Red Rock, <i>l</i> , Cardigan.....	2 0	0 0	2 1½ 2	0 4	0 0	2 0...Jan.
12000 Roman Gravel, <i>l</i> , Salop*.....	7 10	0 0	8½ 8½ 8½	8 6	0 0	5 0...May
512 South Cardan, <i>c</i> , St. Cleer.....	1 5	0 55	50 52½	744	10	0 1 0...Nov.
6124 South Chiswick, <i>c</i> , Redruth.....	8 5	0 12½	12 13	5 17	0 0	10 0...Aug.
12000 Harmon, <i>l</i> , Montgomery.....	3 0	0 2	1 2	0 12	0 0	3 0...Aug.
30000 South Wheel Frances, <i>t</i> , Illogan.....	7 12	4 0	9½ 9½ 9	38	14 6	0 10 0...July
12000 Tankerville, <i>l</i> , Salop*.....	8 0	0 0	3½ 3½ 3½	4 17	6 0	5 0...Jan.
6000 Tincroft, <i>c</i> , <i>t</i> , Pool, Illogan†§.....	11 10	0 0	12½ 10½ 11½	50	8 6	0 5 0...May
15000 Van, <i>l</i> , Llandidoes*.....	4 5	0 16	16 17	24	0 6	0 5 0...July
3000 West Chigwell, <i>l</i> , Parnassubloe†§	17 5	0 0	2½ 2½ 2½	55	10	0 0 10 0...Feb.
512 West Thurton, <i>c</i> , Redruth.....	95 10	0 27½	22 23	33	0 0	1 0 0...Jan.
10000 West Wheel, <i>c</i> , Camborne.....	5 0	0 24	30 35	448	0 0	0 15 0...Apr.
1024 Wheel Eliza Consols, <i>l</i> , St. Austell.	18	0 0	—	25	10	0 1 0 0...Aug.
3000 Wheel Peewee, <i>l</i> , Redruth.....	7 11	9 12	13 14	1 12	8 0	10 0...July

NON-DIVIDEND BRITISH MINES.			
Shares.		Paid.	Last wh. Clos pr.
2560	Aberllyn,* <i>l, bl, Carnarvon</i>	10 0	0. 12 10 12
12000	Amsheton, <i>l, Carnarvonshire</i>	5 0	0. 3/4 3/4 3/4
11553	Bedford Unit,* <i>c, Tavis (£1 lab.)</i>	0 4	0. 3/4 3/4 3/4
30000	Bettws-y-Coed,* <i>l, (£2000 sh. issued)</i>	1 0	0. 1 3/4 1
8000	Blaina Caelan, <i>l, Cardigan</i>	3 0	0. — — —
3939	Blue Hills, <i>t, bl, St. Agnes</i>	4 8	6. 3/4 3/4 3/4
30000	Bodidris, <i>t, bl, Denbighshire</i>	1 0	0. 1 1/2 1 1/2 1 1/2
200	Botalack, <i>t, c, St. Just</i>	128 5	0. 25 20 20 25
10000	British, <i>s-l, Wrexham</i>	2 0	0. 3 2 3/4 3
200	Brownegelly, <i>c, St. Agnes</i>	2 10	0. 1 1/2 1 1/2 1 1/2
20000	Bwle-y-Coed,* <i>l, (£2000 sh. issued)</i>	0 12	6. 3/4 3/4 3/4 1 1/2
50000	Cambrian,* <i>s-l, c, Cardiganshire</i>	2 0	0. 2 1 1/2
20000	Cen Fofdale, <i>c, l, of Man (£2 sh.)</i>	1 0	0. 3/4 1 1 1/2
5120	Cientiuman, <i>l, Llanrwst</i>	1 0	0. — — —
25000	Cod Mawr Pool,* <i>l, Carnarvon</i>	2 0	0. — — —
7500	Combellack,* <i>t, Wendron</i>	2 0	0. — — —
8000	Combmartin, <i>s-l, North Devon</i>	0 8	6. 3/4 3/4 3/4
2450	Cook's Kitchen, <i>t, Illogan</i>	26 14	9. 2 3/4 2 3/4 3
6400	Crook Burn,* <i>l, Cumberland</i>	0 5	0. 6 3/4
14000	Crosswood Mining Lands, <i>l</i>	1 0	0. 1 1/2 1 1/2
15000	Cwm Brynno,* <i>l, Cardigan</i>	2 0	0. 2 3/4 2 3/4
15000	Cwm Dwyfor,* <i>c, s-l, Wales</i>	0 0	0. — — —
1280	D'Eresby Consols, <i>l, bl, Carnarvon</i>	10 0	0. — — —
1028	D'Eresby Mountain, <i>l, bl, Llanrwst</i>	20 0	0. — — —
20000	Denbighshire Consol,* <i>s-l, l</i>	0 3	0. 1 1/2 1 1/2 1 1/2
12000	Derwent,* <i>l, Durham</i>	4 0	0. 3/4 3/4 3/4
10000	Dubby Syke, <i>l, Durham</i>	0 15	0. 3 3/4 3/4 3/4
5000	East Black Craig,* <i>l, Scotland</i>	5 0	0. — — —
6144	East Cardon, <i>c, St. Cleer</i>	3 2	0. 1 1/2 3/4 1 1/2
1000	East Chiverton, <i>l, Penrannabuloe</i>	9 10	3. 2 1 1/2 2
3000	East Craven Moor,* <i>l, Pateley Bdg.</i>	10 0	0. 9 8 0
300	East Daren,* <i>l, Cardiganshire</i>	32 0	0. — — —
30000	East Florida,* <i>s-l, Cardiganshire</i>	1 0	0. — — —
6000	East Goginan, <i>l, Cardigan</i>	2 0	0. — — —
10000	East Longstone,* <i>s-l, Llanrwst</i>	1 0	0. — 1 1 1/2
3000	East Nant-y-Gro, <i>l, Salop</i>	10 0	0. — — —
18000	East Van, <i>l, Llanidloes</i>	5 0	0. 1 1/2 2 2 1/2
1114	East Wheel Lovell, <i>t, Helston</i>	10 8	6. 3/4 3 3 1/2
6000	Florence,* <i>s-l, bl, St. Ive</i>	5 0	0. 6 5 5
12500	Frongoch, <i>l, Cardigan (11000 sh. iss.)</i>	2 0	0. 1 1/2 1 1/2 2 1/2
3950	Gawton, <i>c, Tavistock</i>	4 9	6. 3/4 3/4 3/4
4000	Glenroy,* <i>s-l, Isle of Man</i>	4 0	0. 3/4 3/4 3/4
20000	Glenroy,* <i>s-l, Isle of Man</i>	4 0	0. 3/4 3/4 3/4
20000	Great Dyffryn,* <i>s-l, Montserrat</i>	1 0	0. 1 1/2 1 1 1/2
20000	Gt. E. Fofdale, <i>t, l, of Man (£1 sh.)</i>	0 18	0. — — —
2000	Great Holway,* <i>l, Flintshire</i>	5 0	0. 5 4 1/2 5
6000	Great Wh. Eleanor, <i>t, North Bovey</i>	1 17	6. 3/4 3/4 3/4
20000	Griffin, <i>s-l, Carnarvon</i>	1 0	0. — — —
9880	Gunnislake (Clitters), <i>t, c</i>	5 5	0. 1 1/2 1 1/2 1 1/2
10000	Gwern-y-Mynydd,* <i>s-l, Flintshire</i>	5 0	0. 1 1/2 4 4 1/2
10000	Harehope Gill,* <i>l, Durham (£1 sh.)</i>	0 5	0. — — —
1200	Hartington Moor,* <i>carb. l, Derby</i>	1 1	0. — — —
6400	Harwood,* <i>l, Durham</i>	0 15	0. 1 1/2 1 1/2 1 1/2
3000	Herodafot, <i>l, near Liskeard</i>	1 0	0. 2 2 2 1/2
8000	Hillingdown, <i>c, Calstock</i>	0 8	0. 3/4 3/4 3/4
6000	Killfretth, <i>t, Chacewater</i>	2 12	6. 3/4 3/4 3/4
12000	Ladywell,* <i>l, Salop</i>	2 10	0. 3/4 3/4 3/4
12000	Ditto, 10 per cent. pref., £1 each.	0 10	0. 3/4 3/4 3/4
5000	Lead Era,* <i>l, Mold</i>	10 0	0. 3/4 2 3/4 3/4
2500	Levant, <i>c, St. Just</i>	10 10	0. 3/4 2 3/4 3/4
6000	Livingstone Consols	0 10	0. 3/4 3/4 3/4
10000	Lomax,* <i>s-l, Penrannabuloe</i>	1 0	0. 1 1/2 1 1 1/2
5120	Lovett, <i>t, Wendron</i>	0 16	0. 1 1/2 1 1 1/2
30000	Llanrwst,* <i>l, Carnarvon</i>	2 0	0. 2 1 1 1/2
7500	Ditto, 10 per cent. pref.	2 0	0. 2 3/4 2 3/4 2 3/4
9000	Marke Valley, <i>c, Linkinhorne</i>	5 3	6. 3/4 3/4 3/4 1
1800	Mawston,* <i>l, South Wales</i>	1 0	0. 3 1 1/2 2
6000	Medlyn Moor, <i>t, Wendron</i>	3 15	10. — — —
11000	Melyndwr, <i>l, Cardigan</i>	3 0	0. 1 1/2 3/4 1 1/2
8000	Mineral Corporation of Gt. Britain	10 0	0. 12 11 11 1/2 11 1/2
11000	Mynydd Gorddu, <i>l, Cardigan (Red)</i>	5 0	0. 1 1/2 1 1/2 1 1/2
2000	Morfa Du, <i>s, g, s, Anglesea</i>	1 0	0. 3/4 3/4 3/4
25000	Nant-y-Ronen, <i>s-l, Cardigan</i>	1 0	0. — — —
4678	New Bronfroyd,* <i>l, Cardig. (£5 sh.)</i>	3 18	0. 3 2 2 3/4 3
3000	New Cwmystwith,* <i>s-l, Cardigan</i>	5 0	0. — — —
8000	New Dolobach, <i>t, c, Cernwne</i>	5 0	0. 1 1/2 1 1/2 1 1/2
4000	New Tincford,* <i>l, Flint</i>	5 0	0. 2 2 2 1/2 2 1/2
4000	North Cornwall,* <i>l, Cornwall</i>	5 0	0. 5 5 5 5 1/2
10000	N. D'Eresby Mount, <i>s-l, bl, Carnarv.</i>	1 0	0. 1 1/2 1 1 1/2
2000	North Levant, <i>t, c, St. Just</i>	13 8	0. 3/4 3/4 3/4 3/4

NON-DIVIDEND MINES—continued.

Shares.		Paid.	Last wk.	Clos pr.
50000	North Molton, c, m, t, Devon	1 0 0	—	1 1
2938	North Treskerby, c, St. Agnes	8 17 10	—	—
12000	Pandora, * t, Carnarvon	2 0 0	3½	3½ 3½
6000	Park Valley, * t, North Devon	0 4 0	—	3½ 3½
6000	Paracorn, s, t, Devon	0 4 0	—	—
45000	Parys Corporation, c, t, Angles	1 0 0	—	3½ 3½
7500	Pateley Bridge, t, Yorkshire	1 0 0	3½	3½ 3½
15000	Ditto (also 7500 sh. not issued)	0 17 0	—	—
12000	Pen-yr-Orestd, * t, Flintshire	1 0 0	1½	1 1½
5000	Penhalls, t, St. Agnes	3 17 6	1	3½ 1
45793	Pennruthral, * t, c, Gwennap	2 0 0	2s.	1s. 2s.
15000	Perran Consols, s, t, Perranzabuloe	1 0 0	—	—
12000	Phoenix, & W. Phoenix, t, c, Link.	5 10 3	—	—
7000	Phoenix, t, Holywell, fully paid	1 0 0	3½	3½ 3½
6000	Elypion Mining and Refining Co.	2 0 0	—	—
12000	Plynnimon, t, Llanidloes	1 0 0	8s.	4s. 8s.
10000	Port Nigel, * s, t, Carnarvonshire	2 0 0	3½	3½ 3½
2000	Prideaux Wood, t, Llanvory	5 0 0	—	—
5182	Prince of Wales, c, Caistock	2 8 0	—	—
6000	Relistian Consols, c, Gwinaur	0 10 0	—	—
5000	Rhydalun, * t, Mold	10 0	—	—
15000	Rookhope, t, Durham	1 10 0	3½	3½ 3½
15000	So. Cambrian, * t, Cardiganshire	1 0 8	13½	13½ 13½
8000	South Oswystwith, t, Cardigan	2 0 0	2	3½ 3½
9000	South Darren, t, Cardigan	1 10 0	13½	13½ 13½
30000	South of Eresby Mountain, t	1 0 0	—	—
512	South Dolcoath, c, t, Redruth	12 5 0	—	—
5000	So. Molton Cons., s, t, North Devon	6 3 6	—	—
18000	South Rosmar Gravel, s	1 10 0	3s.	1s. 3s.
8000	South Rosmar, t, c, Camborne	8 5 0	—	—
6000	St. David, s, t, Gwinnap	1 0 0	21	3½ 3½
937	South Wheal Crofty, c, Illogan	47 10 0	21	21 23
6000	St. Lawrence, Amal, t, Flintshire	2 0 0	—	—
10000	St. Patrick, t, Halkin, Holywell	1 0 0	13½	1 13½
30000	Talybont, * s, t, Cardiganshire	1 0 0	—	—
4000	Tamar, s, t, Bearlston	1 0 0	13½	13½ 13½
6400	Teesdale, t, t, Durham (pref.)	1 0 0	14s.	3½ 3½
10000	Temple, t, Cardigan	1 0 0	—	—
5000	Trethelland Wood, t, Redruth	8 1 0	—	—
12000	Trethelland, s, t, Cranstock	2 0 0	—	—
6400	Turo, * t, Nergua, Flintshire	10 0 0	—	—
5000	Tyn-y-Fron, * t, Cardigan	1 0 0	13½	1 13½
5000	Ditto	0 7 6	3½	3½ 3½
10000	Van Cons. and Glyn, * t, Llanidloes	2 0 0	3½	3½ 3½
1000	Vaughan, * t, Cardiganshire	10 0 0	—	—
18000	Victor, t, Flintshire (£1 share)	0 5 0	—	—
12000	West Assheton, t, Carnarvon	1 0 0	3½	3½ 3½
12000	West Bassett, c, Illogan	7 0 4	5½	6 6½
5500	West Combmartin, s, t, No. Devon	0 0 0	—	—
7000	Ditto	0 0 0	—	—
3000	West Craven Moor, t, Pateley Bridge	10 0 0	8	7 8
12000	West Goginan, * Cardiganshire	2 0 0	3½	3½ 3½
12000	West Holway, t, Flintshire	1 0 0	13½	13½ 13½
3000	West Mary Ann, t, Menheniot	0 12 6	—	—
199	Westminster Bog Issa, Llanarnmor	5 0 0	—	—
20000	W. of Englad Spst. Iron & Ld. Smlt.	5 0 0	5½	5 5½
20000	West Pateley Bridge, * t, Yorkshire	1 0 0	23½	23½ 23½
1783	West Poldice, St. Day	11 0 0	—	—
10000	West Rode, s, t, c, Camborne	5 10 0	—	—
2048	West Wheal Pervor, c, Illogan	2 10 0	53½	6 6½
3000	West Wheal Pervor, t, Redruth	1 5 0	4	3½ 4½
12000	West Wye Valley, * t, Montgomery	3 0 0	13½	3½ 1
6000	Wheal Agar, c, Illogan	12 10 0	3½	3 3½
6144	Wheal Bassett, c, Illogan	33 2 8	2½	2 2½
6000	Wheal Coates, t, St. Agnes	2 0 0	—	—
2835	Wheal Comfort, c, Gwennap	1 7 0	—	—
6000	Wheal Orebor, c, Tavistock	4 8 0	—	5½ 6
5179	Wheal Grenville, c, Camborne	10 10 0	5	4½ 5½
2000	Wheal Gun, t, St. Agnes	5 13 10	4	3½ 4
4295	Wheal Kitt, t, St. Agnes	1 0 0	—	—
80	Wheal Owles, t, St. Just	173 15 0	22	20 22½
12000	Wheal Russell, c, Tavistock	2 1 6	—	—
1000	Wheal Sisters, t, Lelant	14 0 0	—	—
4098	Wheal Uny, t, c, Redruth	15 1 0	3½	13½ 13½
2324	White Cliff, * t, Llanrwst	5 0 0	—	—
10000	Wye Valley, t, Montgomery	3 0 0	13½	3½ 1

* Limited Liability Companies; † quoted on the Stock Exchange
‡ have paid dividends.

NON-DIVIDEND FOREIGN MINES; FOREIGN AND MISCELLANEOUS STOCKS; TRAMWAYS; INSURANCE COMPANIES; GAS, IRON AND COAL, WAGON COMPANIES, &c.

NON-DIVIDEND FOREIGN MINES.

<i>Shares.</i>	<i>Paid.</i>	<i>Clos. pr.</i>
15000 Birdseye Creek, g, California*	4 0 0	¾ ¾
30000 Blue Tent, Aysk, California	2 0 0	2 2½
10000 Blue Tent, Aysk, California	0 15 0	0
15000 Canada, g, Canada	1 0 0	2 2½
34433 Cedar Creek, g, California*	5 0 0	0
15000 Chicago, g, Utah*	10 0 0	0
49935 Chontales, g, s, Nicaragua*	2 0 0	¾ ¾
75000 Colombian Hydraulic, g, Colombia	1 0 0	0
65000 Colorado United, s-i, Colorado*	6 0 0	1½ 1½
100000 Don Pedro North del Rey*	1 0 0	¾ ¾
20000 English Australian, g, Victoria*	1 0 0	0
100000 Exchequer, g, s, California*	1 0 0	¾ ¾
100000 Frontenac, i, Ontario, Canada	1 0 0	0
10000 Hornsback, s-i, Spain	10 0 0	0
100000 Imperial, i, bl, Oregon	10 0 0	0
12000 Hunter Consolidated, s-i, Utah	10 0 0	0
75000 Isabelle, g, s, California (£20 sh.)	5 0 0	0
100000 I.X.L., g, s, California	1 0 0	0
50000 Javali, g, Nicaragua*	2 0 0	¾ ¾
20000 Last Chance, s, Utah	5 0 0	0
65000 London and California, g*	2 0 0	¾ ¾
7587 Lusitanian, Portugal* (£5 sh.)	4 15 0	0
9000 Missouri, i, pref (£10 sh.)	4 0 0	4½ 5
40000 Nava de Jadraque, g, s, Spain	1 0 0	0
66000 New Quebrada, g, Venezuela	5 0 0	2½ 2½
30000 New York, g, s, Venezuela	2 0 0	¾ ¾
100000 Nouv. Monde, g, Venez. (en com.)	1 0 0	¾ ¾
30000 Oregon, g, Oregon, U.S. (pref. sh.)	4 0 0	0
50000 Pacifico, c, Chili* (£30000 Deb.)	4 0 0	2½ 2½
80000 Pastorena United, g, Italy*	3 0 0	¾ ¾
25000 Pitanguy, g, Brazil (in 6000 £1 pd)	0 8 6	0
26000 Placerville, g, g, California	2 0 0	2½ 2½
40000 Ravenscliff, g, N. Zind; g, C. Aust.	0 5 0	0
£2181000 Rio Tinto, c, g, Huelva, Spain	Stock	77 79
100000 Riosa Grande, g, Brazil* (£1 sh.)	1 0 0	0
25300 Ruby and Dunderberg, g, Nevada*	10 0 0	0
200 Ditto (10 per cent. deb. conv.)	50 0 0	0
32000 Saint-Pierre, s, bl, Arizée, France	1 0 0	0
10000 Silver Plum, s, Colorado	1 0 0	0
20000 Tolima, g, s, South America	2 0 0	0
50000 Vreberg, g, Rheinbreitb., Ger*	5 0 0	0
15000 Western Andes, s, New Granada	2 0 0	0
75000 Yonke Peninsula, c, So. Australia	1 0 0	¾ ¾
54800 Yorke Pen., c, South Aust. Pref.	1 0 0	¾ ¾

GAS COMPANIES.

Issue, Shares		Pd.	Clos.	pr.
5000..	20.. Bahla [L]	all...	13	14
40000..	5.. Bombay [L]	all...	5½	6
10000..	5.. Ditto, New [L]	all...	¾	100
297700..	5½k.. B. of Bengal Consolidated	100...	1½	153
350000..	5½k.. Chestnut United	100...	180	170
20000..	5½k.. Commercial	100...	187	190
20000..	20.. Continental Union [L]	all...	18	18½
20000..	20.. Do. do. New, 1869, 1872	14.. 2½	1½	dis
10000..	20.. Do. do. 7 per ct. Preference all	22½	23½	
23406..	10.. European [L]	all...	17½	18½
4094850..	5½k.. Gaslight and Coke, A. Ord.	100...	179½	180½
500000..	10.. Ditto, 4th issue	all...	17	17½
50000..	10.. Ditto, 5th issue	all...	16	17
284200..	5½k.. Do. 4 per cent. Deb. Stock	100...	15	16
10000..	10.. Hong Kong and China	all...	15	16
3800000..	5½k.. Imperial Continental	100.. 177½	178½	
388500..	5½k.. London	100...	174	177
561000..	5½k.. Liverpool United	100...	178	180
12000..	5.. Malta & Mediterranean [L]	all...	1½	2½
100000..	5.. Metrop. & Melbourne p.c. Deb.	all...	104	105
25000..	20.. Monte Video [L]	all...	13	14
10000..	5.. Ottoman [L]	all...	2	2½
30000..	5.. Oriental [L]	all...	6½	7½
27000..	20.. Phoenix	all...	36½	37½
20000..	5½k.. Do. do. div. 7½ p.c.	100...	108	112
37500..	10.. Rio de Janeiro [L]	all...	28	28
500000..	5½k.. South Metropolitan	100...	187	190
14500..	10.. Surrey Communes	all...	19½	20

INSURANCE COMPANIES.

<i>Issue.</i>	<i>Shares.</i>		<i>Pd.</i>	<i>Clos. pr.</i>
50000	100	Alliance British and Foreign	11	28½ 29½
10000	100	Ditto, Marine	20	27 29
50000	30	British and Foreign	11	12½ 12½ pm
50000	50	Commercial Union	5	18 18½ x0
50000	50	Bagle	5	5½ 5½
25000	20	Globe Marine [L]	11	2½ 2½ dis
7500	100	Imperial Life	10	21 23
13452	100	Indemnity Marine	50	93 95
49626		L'pool & Lond. Globe (£1 aunity)		15½ 15½
35882	25	London	12½	59½ 60½
40000	25	London and Lancashire Fire	2½	3½ 3½ pm
40000	25	London and Provincial Marine	2	1½ 2½ pm
10000	100	Marine	2	1½ 2½ pm
50000	10	Mercantile Marine	2	1½ 1½ dis
50000	10	Maritime	2	4½ 5
40000	50	North British Mercantile	8½	44 46
30000	100	Northern	5	39 40
40000	25	Ocean Marine	5	1½ 2
200000	10	Queen	1	2½ 2½ pm
100000	10	Railway Passengers	29½	7½ 8½
200000	5	Rock Life	½	8 8½
34810	50	Royal Farmers	2	5½ 6
50000	10	Sea	2	4½ 4½
20000	10	Scottish Commercial	1	1½ 1½
4000	20	Standard Marine	4	6½ 7½
10000	20	Thames and Mersey Marine [L]	2	6 6½ pm
40640	20	Union Marine, Liverpool [L]	5	8 8½
50000	20	Univocal Marine [L]	5	5 5½

WAGON COMPANIES.

Shares.		Pct.		Class, per.
10	Birmingham Wagon Co. [L.] #10	0	12	12%
10	Ditto 2nd issue.....	4	0	1%
10	Ditto pref., 6 per cent.....	10	10%	11%
20	British Wagon Co. [L.]	10	0	1% pm
	Gloicester [L.]	10	0	5%
10	Ditto 5th issue.....	5	0	2%
10	Met. Rail. Car. & Wagon Co. [L.]	5	1 1/2	2% dis
5	Ditto pref., 6 per cent.....	10	0	3% pm
10	Midland	10	7 1/2	8%
20	North Central Wagon Co.	20	18	20%
5	Rail. Car. [L.] Oldbury.....	5	0	3%
5	Ditto pref., 6 per cent.....	5	413	41%
20	Sheffield Wagon Co. [L.]	15	0	1% pm
10	Yorkshire Wagon Co. [L.]	10	0	1% pm

FOREIGN AND MISCELLANEOUS STOCKS.

	Closing prices.
Argentina, 1868, 6 per cent.	87 99
Bolivia, 6 per cent. Bond Com. Cert.	37 38
Brazilian, 1865, 5 per cent.	93 95
Chilian, 1866, 7 per cent.	76 79
City of Melbourne, 5 per cent., 1866-1907.	106 108
City of Ottawa, 5 per cent. Stirling.	111 111
City of Providence, 5 per cent. coupon Bonds.	103 105
City of Quebec 6 p. cent. Con. Fnd. Btg. Loan.	104 106
City of Toronto, 6 p. ct. Stirling. Bnds, 1897-1904.	111 111
Egyptian Government pref.	76 76 3/4
Ditto, Unified Debt, script	49 49 3/4
Ditto, 7 per cent. V.M.L.	79 81
Ditto, 9 per cent. guaranteed	85 87
Ditto, K. Dalra Sanieh	62 63
Foreign and Colonial Gov. Trust, preferred	101 103
Ditto, 5 per cent., preferred	88 92
Peruvian, 1870, 8 per cent.	14 14 1/2
Ditto, 1872, 5 per cent.	11 11 1/4
Russian, 5 1/2 per cent. L. Mort.	100 100
Spanish, Quiksilver, Mort. 5 per cent.	100 100
United States Mort. 6 per cent.	100 100

IRON AND COAL COMPANIES

Shares.	Company.	Paid.	Price.
£100	Abbot, John, and Co [L].....	75	0 45 40
15	Alton Steel and Wire Co. [L] 14	0	—
5	Altiani Colliery Co. [L].....	8	0 25 8
100	Asbury Co. [L]	90	0 60 65
3	Bagnall, John, and Sons [L]..	8	0 0 2 2½
10	Benhar Co. [L].....	50	0 1 13½
100	Bilbao Iron Co. [L].....	50	0 8 9
50	Bilson & Crump Midw Coal [L] 10	0	—
100	Bolckow, Vaughan, & Co. [L] A	60	0 8 7
50	Brown, Bailey, and Dixon [L] 10	0	21 20
100	Brown, John, and Co. [L].....	70	0 35 30
3	Cakemore, Caeaway, Grn. ord. sh.	3	0 0 33½
3	Ditto (7½ per cent. pref.).....	3	0 0 33½
100	Cammell and Co. [L]	80	0 35 30
20	Cannock & Huntingdon Coal [L] 10	0	9½ 9
10	Central Swedish Iron & Stl. [L]	10	0 1 1½
5	Chapel House Colliery	5	0 1 1½
50	Charlton Iron Co. [L].....	50	0 7 8
50	Chatterley Iron Co. [L].....	50	0 5 10
10	Chillinglton Iron Co. [L].....	10	0 8 3½
10	Conssett Iron Co. [L].....	7	10 7½ 7½
1	Conssett Spanish Ore [L].....	1	0 par
50	Cooke, William, and Co. [L]..	45	7 45 44
20	Darlington Iron Co. [L].....	14	0 0 ¾ ¾
10	Davy Brothers [L].....	22	10 4 3½
23	Ebbw Vale Co. [L]	20	0 17 18
100	Fox, Samuel, and Co. [L]	80	0 —
10	Genl. Mining Ass. [L] (A. rtd.)	9	0 0 9½ 4½
15	Hopkins, Gilkes, and Co. [L]..	12	0 —
50	Knowles, Andrew, and Co. [L]	22	0 12½ 12
10	Llay Hall Coal, Iron, &c. [L]..	10	0 —
50	Llynvi, Ogmore, & Tondal [L]	50	0 8 5½
10	Lydney & Wigpool Iron Ore [L]	9	5 1 1½
10	Marbella Iron Ore Co. [L].....	10	0 1 1¼
10	Midland Iron Co. [L].....	5	0 2½ 2½
10	Monkland Iron & Coal Co. [L]	10	0 3½ 1½
4	Mwynydd Iron Ore Co. [L].....	3	15 2 1½
100	Nant-y-Glo & Blaizna (S.p.c. prf.)	100	0 15 17
3	Nerbudda Coal & Iron (L & Red)	2	0 2 1½
10	Newport Abercrom Coal Co. [L]	10	0 4 4½
10	Northampton, Coal, Iron, &c. [L]	8	0 —
10	Northfield Iron Co. [L]	8	10 8½ 8½
35	Palmer's Shipbldg. & Iron [L]	35	0 17 15
100	Parkgate Iron Co. [L].....	65	0 30 28
20	Patent Shaft and Axletree [L]	10	0 1 ¾
20	Pelsall Coal and Iron [L].....	17	10 11 10
50	Rhymney Iron Co. [L].....	50	0 14 16
10	Sandwell Park Colliery Co. [L]	10	0 13 14
100	Shotts Iron Co. [L].....	100	0 35 40
100	Sheepbridge Iron and Coal [L]	80	0 50 47½
50	Silkstone & Dodw. Cl. & Iron [L]	33	0 30 38
50	Somorrosterro Iron Co. [L].....	50	0 —
100	Staveley Iron and Coal Co. [L]	60	0 7 5
100	Ditto ditto New 10	0	2 1½
20	Ulverston Mining Co. [L].....	18	0 14 10
10	Vancouver Coal [L]	6	0 4 3
100	Vickers, Sons, and Co. [L].....	100	0 3 2
25	W. Cumberland Iron & Steel [L]	20	0 16 15

TRAMWAYS.

Issue, Shares.		Pd. Clas. pr.
40000... 5	Anglo-Argentine [L]	all 4% 4%
10000... 10	Barcelona [L]	all 10% 11
7140... 10	Belfast Street Tramways	all 9% 8
3050... 10	Birkenhead, Ordinary	all 10% 11
3000... 10	Ditto, 6 per cent. Preference	all 10% 11
9290... 10	Bristol [L]	7% 7% 8
8200... 10	Chester [L]	all 9% 10%
24000... 10	Dublin	all 13 13%
14690... 10	Edinburgh Street Tramways	all 14 14%
35000... 10	Glasgow Tramway & Omni. [L]	5 9% 9%
10000... 10	Hughes Loco. and Tram. works.	all 9 9%
7500... 10	Hull Street Tramways	all 12% 12%
7500... 10	Imperial [L]	all 9% 10
34600... 10	Liverpool Unit. Tram & Om. [L]	all 10% 11%
40000... 10	London [L]	all 11% 11%
15000... 10	London Street Tramways	all 10% 11%
60000... 10	North Metropolitan	all 15% 15%
8000... 10	Nottingham and District [L]	all 11% 12
11947... 19	Provincial [L]	all 11 11%
6000... 10	Sheffield	all 7% 8%
5000... 10	Southampton	all 10 11
6000... 10	Sunderland [L]	all 9% 10
10000... 10	Swansea	all 5 6
12000... 10	Tramways of France [L]	all 9% 10
16500... 10	Tramways of Germany [L]	all 10 10%
20000... 5	Tramways and Gen. Works	all 6% 8% 8%
40000... 5	Tramways Union [L]	all 6% 8% 8%
25000... 10	Vale of Clyde	6 4 4%
7200... 10	Wolverhampton [L]	all 10% 11%

MISCELLANEOUS.

Stk.	Atlantic and Great Western					
	Loaned Lines, Rental Trust	100	0	71	73	
25	Australian Agricultural	21	10	85	87	
10	Brighton Aquarium [L]	10	0	6	7	
Stk.	Cent. of New Jersey Con. Mort.	100	0	102	104	
25	City of London Real Property	12	0	132	2	
5	Diamond Rock Boring	4	10	33	34	d
16	Fore Street Warehouse [L]	14	0	33	33	
15	Foster, Porter, and Co. [L]	10	10	14	15	
17	Hudson's Bay Company	17	0	15	15	
Stk.	Illinois & St. Louis Brge. 1st Mt.	100	0	97	99	
Stk.	Ditto 2nd Mort., 7 per cent.	100	0	46	47	
7 1/2	Imperial Credit [L]	7	10	7	7 1/2	
	— Ditto, Surplus Certificate	—	8	6	6 1/2	
Stk.	Lehigh Val. Con. Mort., A, T, p. c.	100	0	106	107	
10	Milner's Safe [L]	10	0	75	84	
25	National Discount [L]	5	0	93	93	
Stk.	N. Cent. Rail Mort., 6 per cent.	100	0	94 1/2	95 1/2	
10	Pawson and Co. [L]	5	0	1/2	42	par
50	Peninsular and Oriental Steam	8	0	4	49	
Stk.	Pennsyl. Gen. Mort., 6 p. c. 1880-190	100	0	116	118	
Stk.	Do. Con. Sink. Fund, 6 p. c. 1905-100	100	0	108 1/2	109 1/2	
Stk.	Scottish Australian Inv. Co.	100	0	180	190	
Stk.	Ditto 6 per cent. pref.	100	0	127	132	
Stk.	Ditto New Ordinary	100	0	47 1/2	50	
12	Telegraph Const. & Maint. [L]	12	0	313	32 1/2	
5	Ditto, 2nd Bonus, 3 per cent.	5	0	2 1/2	2 1/2	
10	Thariss Sulphur & Copper Co.	10	0	29	30	
Stk.	Union Pacific Land Gr., 1st Mt.	100	0	113	115	
Stk.	Union Pacific Ry., 1st Mort.	100	0	114	115	

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